



What are Amiga Licensees promising?



# Amazing / AMIGA

COMPUTING™  
Your Original AMIGA® Monthly Resource

Volume 13 No. 2 February 1998  
US \$3.95 Canada \$5.95

## Line Types as Textures

Aladdin 4D Tutorial

## PageStream 3.3:

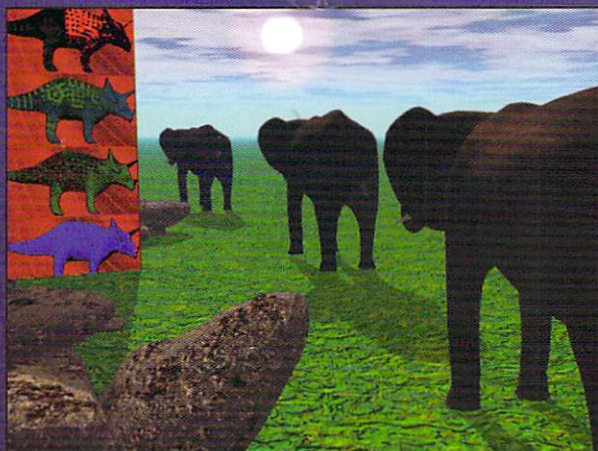
All the Bells and Whistles

## Reading PDF and PostScript Files

## Creating a 2D Particle System

**PLUS!**

Windows 95 Goodies for Amigoids,  
24-bit Datatype Redux,  
AWeb, Amiga soars in India,  
The Games of Bill Williams,  
and more!



**CUT IT OUT!**

Making a stencil  
headline effect!



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## NOW THINGS ARE HAPPENING WITH THE AMIGA

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# An Open Letter to the Amiga Community

To: The Amiga Community

From: David A. Ziembicki  
CEO, QuikPak Corporation

I want to give all of our loyal customers an update on our continued support of the Amiga market. We are making progress on all fronts and as of this date, and I am pleased to announce and confirm that QuikPak products containing Amiga technology have been licensed by Amiga Incorporated for sale as "Licensed Products". This is the first step in recreating and enhancing the Amiga platform and evolving from the current level of technology to meet the future requirements of multitasking / multimedia computing.

There has been a lot of talk and rumors surrounding what is or is not happening with the Amiga technology. The wide ranging list of topics goes from opinions about the lack of commitment by the companies that have survived until now, through a laundry list of "must have" features for any "successful" Amiga based products, and to heated discussions of what is being done wrong by many involved with the Amiga. We at QuikPak will not participate in the rumor mill. There is much more important work to be done in order to sustain the Amiga based products currently available, and devote R&D resources to continuing this fine "breed". My only comment to those that say nothing positive is being done, look at the new companies and products being announced every month in this publication.

It is no surprise that many loyal Amiga users became impatient during the years after Commodore's bankruptcy. The truly amazing part of the recent Amiga story is that a QuikPak A40XX Tower, when coupled with available options, is still the best value for non-linear video editing available - bar none. With the release of Motorola's 68060 66Mhz CPU, available as a factory installed option, power users can get an additional 32 % increase in performance over even the fastest 50Mhz accelerators, and includes a fast wide SCSI Hard Disk controller. Look for benchmarks for this system in the weeks to come.

A final thought. The key to how far and how successful Amiga based computers can go rests with you, the end user / purchaser. Show your continued support of the platform by buying and / or upgrading your Amiga based system. We and Amiga Incorporated are doing everything we can to bring you back the now and future Amiga technology, today and forever. Now you need to help by supporting us with your product purchase dollars.

## NOW THINGS ARE HAPPENING WITH THE AMIGA



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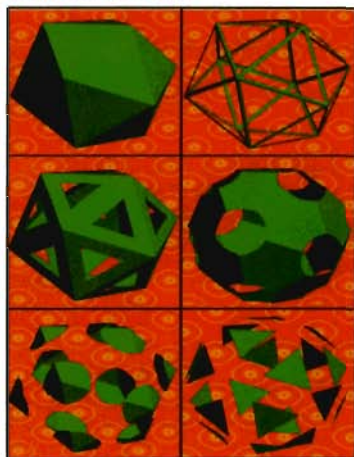


The Clones Are Coming. page 12

# Amazing / AMIGA COMPUTING™



New Products, P.9



Aladdin 4D: Line Types as Textures, P.14



PageStream 3.3, P.18



This Old Workbench, P.30



Windows 95 Goodies for Amigoids, P.32

## 9 New Products

### & other neat stuff

ImageFX offer for ADPro users, Free Amiga web server software, Amiga User Group Network, Amiga soars in India, & more.

## 12 The First Clones

Index Information and DCE Computer Service have both announced newly revised Amiga boards. Just what are the new Amiga licensees promising.



## 14 Aladdin 4D Tutorial #16:

### Line Types as Textures

by R. Shamms Mortier

Tapping the unique features of Aladdin 4D's polygons.

## 18 PageStream 3.3:

### A Year in the Making

by R. Shamms Mortier

Soft Logik listened to their customers and supplied the newest version of PageStream with a load of bells and whistles.

## 22 Cut It Out

by Nick Cook

Making a stencil headline effect.

## 26 On Line

by Rob Hays

AWeb delivers a variety of features to your Amiga to ease you through the internet.

## 30 This old Workbench: Episode 14

### 24-bit Datatype Redux

by Dave Matthews

A discussion of the latest 24-bit datatypes as well as other interesting utilities available through Aminet downloads!

## 32 Windows 95 Goodies

### for Amigoids

by Dave Matthews

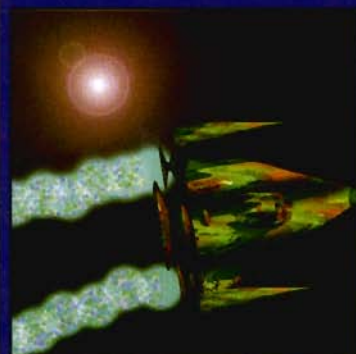
An array of Windows 95 programs that help the Amiga fan when they must work with that alternative computer platform.



## 34 Reading PDF and PostScript Files

by Michael Tobin, M.D., PhD.

Can the Amiga become an acrobat? Displaying informational files from other platforms on the Amiga.



## 42 Creating a 2D Particle System

by R. Shamms Mortier

You can create pretty neat particle effects in your Amiga 2D painting software.



## 48 Games on the Amiga

by Peter Olafson

A tribute to the work of Bill Williams: Part 1. This man brought the Amiga some of its earliest and most unique games. Who is he and what is he doing today?

## DEPARTMENTS

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# Editorial Content

## 12 Years of Amazing and the approach of a new era

This issue of Amazing Computing marks our twelfth anniversary of service to the Amiga community. Which makes this our 140th issue of Amazing Computing.

To put that in perspective, when AC first started, another amazing venture had just started, *Amazing Stories* by Steven Spielberg. Pierce Brosnan was *Remington Steele* with only a hope of someday becoming James Bond. As far as one of my favorites, Bob Newhart was an inn keeper in Vermont and had not become a cartoonist yet (*Bob*) or a bookseller on Martha's Vineyard (his current TV address).

Some of the movies showing at the time Amazing Computing was first going to press were director Terry Gilliam's ("12 Monkeys") fantasy "Brazil," featuring Jonathan Pryce, Kim Greist, and Robert De Niro and "The Color Purple," a film starring the virtually unknown Whoopi Goldberg, Oprah Winfrey, and costarring Danny Glover. Director Sidney Pollack's "Out of Africa" with Robert Redford and Meryl Streep opened just as we were making our final plans with a local printer for the first issue. Amazing Computing hit the street at the same time as the opening of "Down and Out in Beverly Hills" with Bette Midler, Richard Dreyfuss, and Nick Nolte.

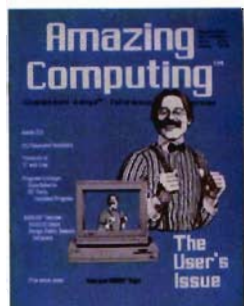
The Macintosh was still a black and white box with no built in hard drive and a patch together memory upgrade. IBM had few contenders in those days as they ran with a 640K maximum memory installed and a Charlie Chaplin look alike was doing their commercials. Things have changed.

When we first started the design of this issue, I wanted to do a look back at the past 12 years and how they have developed the Amiga. However, we received articles for this issue that were longer than normal and required me to alter my design.

Starting next issue, we will begin a series that will look back at the Amiga from where it has come and to where it is going. I hope to talk with other members of the Amiga community and get their thoughts as well. This does include our readers, so please feel free to forward your thoughts to us at our address in the magazine or email me at DonHicks@aol.com

### Following The Amiga

In any manner, the Amiga has been a fun ride. I tend to remember the last twelve years by looking back on the releases of each new Amiga. I started by swapping disks in an "upgraded" 512K Amiga 1000. It was awhile before we were able to get the



extra 1MB of memory on that machine and we never did attach it to a hard drive.

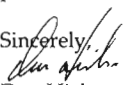
With each new addition to the Amiga line, Amazing followed the excitement. There were the problems caused by Commodore when they released information about the Amiga 500 and Amiga 2000 prematurely (a Summer passed with no sales of Amiga 1000s as everyone waited for the delayed machines). There was the bash Commodore held at the Paladium in New York when Commodore released the Amiga 3000. Then came the quieter announcements of the Amiga 4000, CDTV, and the almost nonexistent release of CD32.

### A New Era for the Amiga

Whether you believe it is for the better or for the worse, no one can deny that the Amiga is entering a new era. With the current nonproduction stance of Amiga Inc., all of the hardware announcements will be coming from the Amiga licensees and not from just one company.

While we have covered some companies who have used the Amiga in different modifications in the past, this issue we have announcements for the first redesigned A1200 systems. The announcements (on page 12) offer a look at what some companies are planning as a variation to the current theme of the Amiga.

This next year should be an interesting year for the Amiga. The proposed new operating system as well as the new projects from Amiga licensees has the potential of developing the current Amiga to new markets. The main force in the development of anything new for the Amiga has been spread between Amiga Inc. and its licensees. I hope we can build memories of the new Amiga line as readily and for as long as we have built them in the past.

Sincerely,  
  
Don Hicks  
Managing Editor

# Amazing / AMIGA

COMPUTING

Amazing Computing/AMIGA™

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# AMIGA<sup>®</sup>

International, Inc.

## They're Back... AMIGA 1200s for North America



One of the Amiga's most popular editions is returning to North America. Amiga International is re-releasing the AMIGA 1200 in NTSC beginning December 1, 1997. Don't miss this opportunity to purchase one of the most popular Amiga systems of all time.

The AMIGA 1200 includes:

- Motorola 68EC020 / 14 MHz, 2 MB RAM onboard
- 32-bit RAM expansion up to an additional 8 MB, significantly more 32-bit RAM may be added with an accelerator board installed
- AA Graphics System, colour palette: up to 16.8 million colours (24 Bit), 256 of them displayable simultaneously or more than 640,000 in HAM8
- Graphics resolutions: from 320 x 200 pixels noninterlaced 50 Hz up to 1280 x 512 pixels interlaced 50 Hz or 640 x 480 pixels noninterlaced 60 Hz or 640 x 400 pixels noninterlaced 70 Hz and many more freely programmable modes
- Video and Genlock capable
- 4-Channel Stereo Sound standard, each 8 Bit DMA
- Keyboard: 96 keys
- Mouse: high resolution 400 dpi, 2 buttons
- 16-Bit IDE Interface for internal 2.5" harddisk, 44 pins
- Floppy Disk Drive 3.5" DD internal, 880 KB AMIGA, 720 KB MS-DOS
- Interfaces: serial RS-232c (modem), parallel (printer), external floppy drive, 2 mouse/joystick ports, video RGB (monitor), video composite (TV, video recorder), RF modulator (TV antenna), stereo audio
- PCMCIA-V2.0 16-Bit interface for RAM (max. 4 MB, 16 bit), Ethernet, or other expansion cards
- CPU Slot 150-pin internal, for memory expansion or accelerator board with bigger processor
- AmigaOS 3.1 with preemptive multitasking

Technical specifications subject to change without announcement.

**Special: HardDisk version comes with 170 MB harddisk**

### Software Bonus!!

Each AMIGA 1200 comes with the Magic software bundle, containing:

- Word Processor—WordWorth v4SE
- Spreadsheet—TurboCalc v3.5
- Database—DataStore v1.1
- Graphics program—Photogenics v1.2SE
- Paint program—PersonalPaint v6.4
- Organiser v1.1
- Games—Pinball Mania and Whizz

### HardDisk EXTRA!

The harddisk version of the A1200HD also comes with Multimedia Authoring System Scala MM300



**See your local Amiga Dealer**

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#### Paxtron

Spring Valley, NY 800-815-3241



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www.amiga.de

# FEEDBACK

Dear AC,

I wholly agree with a point made by Doug Libby in the December issue and would like to comment further.

I can understand and appreciate Gateway/Amiga Inc.'s professional treatment of the Amiga. Especially their 'no rumor/no vaporware' policies. A far cry from Commodore's mismanagement. However, as Doug pointed out, too long a wait could be as bad for the Amiga as no owner at all.

After Escom (and probably during, seeing as they weren't doing anything) several good intentioned companies and individuals did what they could to advance the Amiga and update its technology both in hardware and software. Well meant as this was, it created a hodgepodge of standards; several and none.

Now, with powerful and dedicated leadership, the Amiga has the chance to be better than ever. But what are these third party companies supposed to do? Just scrap several man-years of work and thousands of dollars in R&D and disappear? I fell AI should at least announce a decision as to what processors the new Amigas would use. Then these people could better tailor their products to compliment AI's plans instead of clashing with them.

Far worse is the spot end users are left in. Many of them are upgrading their machines with these alternate processors and unofficial operating systems and extensions, not knowing when or what is coming from AI. If AI takes too much longer to even announce anything I can foresee two main possible outcomes, both bad.

1. The 'unofficial' upgrades become too popular and widespread (there is already growing software support) and become the standard by sheer force of numbers. This forces AI to adopt them, angering users who held out for a new machine when they could have upgraded their old one sooner. Also, upsetting everyone that the new Amiga was patched together from existing pieces and not made everything it could have been.

2. No matter how many users upgrade with these products, AI taking the heavy handed approach and doing it their way with no regard for 2nd or 3rd parties (very Commodore). This would anger both hardware and software developers as well as end users who upgraded, punishing the very people who tried to advance the Amiga and keep it strong.

Either outcome would alienate everyone and sabotage the Amiga's last chance as a market force.

Another point is my own personal situation, which I know is not unique. It is the danger of losing users completely. In the past I have used and owned Amigas, Macs and PCs and am currently using a borrowed PC, having no computer of my own (well OK, a minimal C=64 system). I want an Amiga, but I need a Mac. I cannot afford both.

If the new Amiga uses the PowerPC processor I would wait for one and rely on Mac emulation. But without the same processor, software emulation performance is unacceptable and hardware cards with processors are too expensive, usually nearly as much as the system they emulate. If I bought a Mac I could get a bare bones 1200 just to have an Amiga right away. But then, aside from being disappointing, I couldn't get a new Amiga for a long, long time (read: maybe ever). A current Amiga with PPC accelerator and emulation would be too expensive for too little Amiga, and PowerMac compatibility would be questionable at best. Ahhhhh! Help!

Unfortunately, all this convoluted logic will resolve itself. If AI makes a significant announcement, I will wait. If not I need to get a Mac clone before they're gone at the end of this year ('cause I sure as bloody hell ain't gonna buy an Apple at twice the price for half the performance). And then, before spending more than half as much on a stripped 1200, wait. And wait. And wait...

Amiga Inc. needs to talk.  
Sincerely  
Tim George  
Idyllwild CA

*When we received your letter, we immediately FAXed it to Amiga Inc. for comment. As of press time, they have not responded either on or off the record. - ED*

Dear AC,

I have an 040/4000 with 18 megs and a 1.2 gigabyte Micropolis hard drive. I know the Amiga is the best computer and other platforms should be dumped. I enjoy the current information about the Amiga and I really enjoyed finding out the Amiga is year 2000 compliant. It was also nice to learn that the Amiga was created by Jay Miner.

The two parts of the magazine I do not enjoy are On Line and info about using the other platforms' graphic software along with the Amiga. My interests are graphic tutorials. I have almost all the Amiga graphic software including Image FX 2.6 and Aladdin 5. I want to learn about special effects used by veteran graphic artists that aren't in the manuals.

I love the pictures created by your readers. I wish there were more in every issue. What I would love most would be a monthly contest with the top ten winners in every issue. Graphics are so much a part of the Amiga and a monthly contest would be very fun for Amiga graphic artists.

I love This Old Workbench, but I wish you would allow us to purchase the programs directly from you. A lot of users are not on the Web and have no way to get the programs featured in the articles. This would be a nice service for us.

Please keep Amazing going for all the loyal Amiga users. It's a great magazine and I look forward to each new issue.

Thank You,  
Bill Wheaton  
Bloomburg, TX

*Thank you for your interest and your ideas. I believe some of your suggestions should be put into effect as soon as possible.*

*If you are not on the web, I can understand why the on-line column could be less than useful for you. It is our hope, however, to get all Amiga users connected to the internet and this is the one reason we have continued this column and others so long. Both PCs and Macs are internet ready machines at purchase. As Amiga users, we cannot allow the internet (which once had a large section of Amiga enthusiasts) to become lost behind the influx of these PC and Mac units. If more Amiga users were connected through the web, we could implement many of your suggestions by using our website ([www.pimpub.com](http://www.pimpub.com)). — ED*

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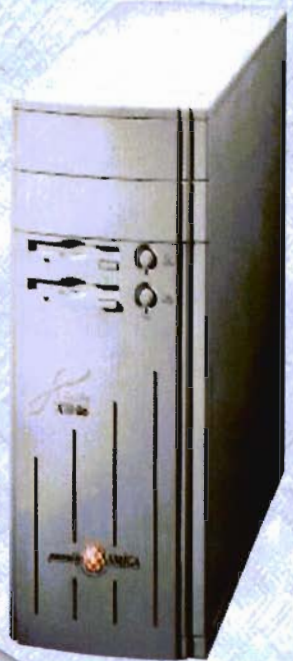
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## The Fastest Growing Amiga Market? India

### Shaf Information & Teknologies PVT. LTD

During India's 4th International Exhibition & Conference on Broadcast Cable and Satellite, AMIGA International, Inc. announced that Shaf Information & Teknologies PVT. LTD, Mumbai, India, signed an order for 2,000 AMIGA A1200 units in New Delhi for delivery February 1998. In 1993, Shaf was created to address the desktop video segment. Shaf has a nation-wide network of 50 dedicated dealers and 10 studio product dealers who are provided with marketing and after-sale support.

Shaf provides comprehensive solutions in the desktop video products and high end 3D animation software. In India, Shaf is the authorized dealer for AMIGA International, Inc. (Germany), SCALA-As (Norway), CIS (France), Deskstation Technology, Inc. (USA), Digital Processing Systems Ltd. (UK), Eyeon Software, Inc. (USA) and NewTek, Inc. (USA).

*The press releases and news announcements in New Products are from Amiga vendors and others. While Amazing Computing maintains the right to edit these articles, the statements, etc. made in these reports are those of the vendors and not Amazing Computing.*



**The staff and management of Monarch Video Vision in India.**

Petro Tyschtschenko, President of AMIGA International, Inc. stated, "This order for India is the biggest order in the Asian region AMIGA International, Inc. has ever signed. We are very proud to supply our A1200 as a base equipment (Multi Language Titler). AMIGA A1200 is covering title, advertise and logo at the same time, and it is used in India especially for cable operators, the broadcast and videographics industry. It is a huge market. The basis of success is to work together with competent partners like Shaf."

Pradeep S. Kohli, Director Finance, Shaf, stated: "This first big order will be the beginning of a long relationship between AMIGA International, Inc. and Shaf. I am quite sure that other orders will follow to ramp up the Indian broadcasting market. AMIGA is one of the best and efficient solutions."

For more information contact:  
sureshp@shafindia.com  
<http://www.shafindia.com>

### Monarch Video Vision

Monarch Video Vision is the authorized distributors of Pinnacle Systems, Amiga International Inc., Videonics and Kramer in India. Monarch offers video based solutions and accessories for cable operators and for the broadcast and videography industry. Its main products are the Amiga 1200 and Genie plus, Monarch has an extensive dealer network of 15 dealers all throughout India.

Monarch has a first of its kind service centre in India offering one day repairs and services for Amiga, Videonics and Pinnacle products. Monarch will soon be offering its services through its dealers.

Monarch Video Vision, 8/16, M.K- Amin Marg, Behind Central Camera, Fort, Mumbai 400 001 India, Tel: + 91-22-261 9022/264 1024/263 0688, Fax: + 91-22-261 8706, E-mail: [viren.satra@access.net.in](mailto:viren.satra@access.net.in), Contact: Viren Satra CEO.

## Amiga User Group Network

Amiga Inc., in association with Amiga.org has announced the formation of the Official Amiga User Group Network. Designed with both Amiga User Groups and Amiga, Inc. in mind, the User Group Network (UGN) will allow User Groups and Amiga, Inc. to interact in close cooperation.

The User Group Network is an internet-based system intended to get essential news out to the users as quickly and efficiently as possible by presenting a unified interface between Amiga, Inc. and the user groups. News from Amiga, Inc. is fed directly to the User Group Network, then broadcast to all of the network members via direct e-mail.

To join the User Group Network, please visit the User Group Network site at <http://www.amiga.org/usergroups> to fill out a quick and easy web form. Your group's information is then placed in the Official User Group Registry which will be available for everyone.



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**March 14th and 15th, 1998**

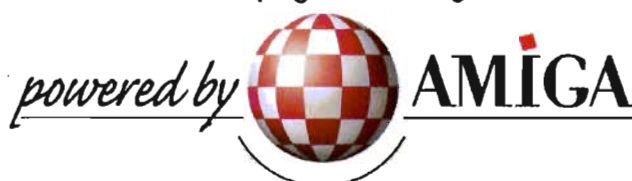
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### Amiga Apache 1.3b3 released!

The Amiga Apache http server project has announced the new 1.3b3 release of the professional Apache webserver. It is available for downloading at: <http://www.xs4all.nl/~albertv/apache/index.html>

The Amiga Apache webserver is a port of the professional Apache webserver, used by more than 40% of all servers on the Internet. Amiga Apache is compatible with the original Unix Apache and uses the same configuration files and uses the same options.

The Amiga Apache webserver is enhanced with the ability to execute ARexx scripts (although it has no ARexx port of its own). This means that Amiga programs can interface with the server for input and output. For example, it is possible and easy to connect a database program with ARexx support to Apache with the help of ARexx scripts.

New features that Amiga Apache supports:

- **Optional Spelling Correction module:** This module corrects frequently occurring spelling errors in document names requested from the server. This includes the correction of miscapitalized requests (as was available in a separately available mod\_spelling module as of Apache 1.1 already) but extends spelling

correction to single inserted, omitted, transposed or mistyped characters. This catches the majority of mistyped requests.

- **Better Logging for Proxy Connect Errors:** When the proxy has difficulty connecting to a system it will log the error as well as the IP address and port to which it couldn't connect.
- **Enhanced SSI String Comparisons:** The string-based server-side include (SSI) flow-control directives provided by mod\_include now include comparison for less-than (<), less-than-or-equal (<=), greater-than (>), and greater-than-or-equal (>=). Previously, comparisons could only be made for equality or inequality.
- **Sortable Directory Listings:** If a directory listing is displayed using FancyIndexing, clicking on a column title will now sort the listing in order by the values in that column.
- **New "Magic" MIME-typing module:** A new module, the optional mod\_mime\_magic, uses "magic numbers" and other hints from a file's contents to discover what the contents are. It then uses this information to set the file's media type, if it cannot be determined by the file's extension.
- **Support for Directory Icon Sizing:** When the FancyIndexing option is

enabled, each file in the directory list is preceded by an icon representing the content type. The IndexOptions directive now has two new keywords which allow you to control whether pre-sized IMG tags are used to substantially speed up the display of large directory listings.

- **NoProxy and Proxy:** Domain directives added to proxy, useful for intranets.
- **AddModuleInfo directive** added to mod\_info: Allows additional information to be listed along with a specified module.
- **Improved HTTP/1.1-style Virtual Hosts:** The new NameVirtualHost directive is used to list IP address:port pairs on which HTTP/1.1-style virtual hosting occurs. This is vhosting based on the Host: header from the client.
- **Year-2000 Improvements:** The default timefmt string used by mod\_include as well as the mod\_autoindex module has been modified to display the year using four digits.

The Amiga Apache project is run by Amiga volunteers who think that the Amiga could benefit from a professional http server like Apache. They do it for free, since the Apache sources are for free too. Find them on the web at: <http://www.dsdfelt.nl/~apache>



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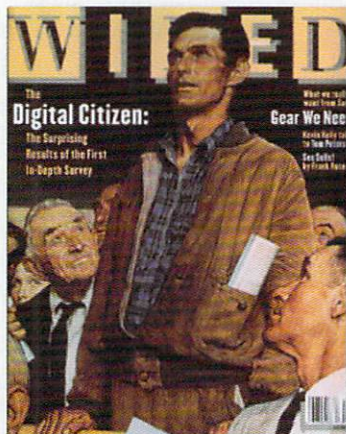


### New Cable for the VideoTurtle

Turtle Enterprises' VideoTurtle (\$149.95) provides S-VHS conversion from your Amiga's RGB port. Until now, the VideoTurtle required an external power supply, but a new cable is being offered for the device that splits the required power directly from the Amiga's RGB port. This takes the place of the previously required 1084S 9-pin DBN male cable.

In tests at AC, we were able to use the VideoTurtle for output to S-VHS devices for viewing or taping presentations. Unfortunately, we were unable to test the unit for broadcast quality specifications. Please see your dealer for a demonstration.

Turtle Enterprises can be reached via email: [videoturtle@hotmail.com](mailto:videoturtle@hotmail.com) or by dialing (818)-967-3341.



### Thanks Wired

Under the title "Sixth Coming" *Wired* Magazine's December issue acknowledged the effort being placed on the Amiga. After a brief list of the Amiga's failed owners, rumors of the Amiga's new markets, and comments about Gateway 2000's silence, *Wired* stated, "Even if this revival fails, the faithful know the Amiga still has several lives to go."

Although it is too bad *Wired* didn't mention it has been the faithful who have kept the Amiga alive, we are all grateful for their attention. This is even more important when we remember that Gateway 2000's Jim Taylor mentioned last May that this venerable publication uses Amigas heavily in their web design work.

•AC•

# The First Clones

The first truly redesigned Amiga units have been announced for next year.

With the Cologne '97 exposition in Germany in mid-November (see the Cologne article in the *Amazing Computing/Amiga* January '98 issue), Amiga International began showcasing some of the new generation Amiga motherboards created by Amiga's new group of licensees. While these boards are based on the current Amiga 1200 specifications, their designers have added new features to improve their speed while maintaining their Amiga compatibility.

Although these boards are still in the design and pre-production phase, we felt it was important to show our readers what has been proposed and when the designers believe each product will be ready. The following is the list of features and options as released by Index Information Ltd. and DCE Computer Service GmbH for their respective products.

### BoXeR from Index Information Ltd.

Index Information Ltd, has already introduced Access (*Amazing Computing/Amiga* September '97) based on an Amiga 1200 that was redesigned to fit into a 5 1/4" hard drive case and be used as a corporate purchase for use in kiosks and presentation systems. BoXeR is Index's attempt to bring a newly designed Zorro III Amiga 1200 based motherboard to the consumer market.

Mick Tinker, Managing Director of Index Information Ltd, stated that the BoXeR should be available in the Mid first quarter of '98. The BoXeR will be sold as a motherboard to distributors and dealers who will then configure the product to their customer's specifications. Index is looking

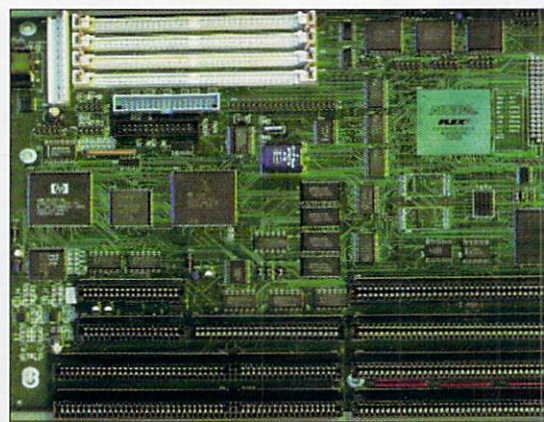
to create a market in price ranges between the A1200 and the Amiga 4000 Tower.

Main features include: Motorola 68040 - 68060 (25MHZ - 75 MHZ) supported in single processor socket (depending on dealer specifications), on board 2MB CHIP RAM, 4x72pin standard SIMM sockets allowing up to 2GB FAST RAM, Dual IDE Hard disk interface, Flash ROM 2MB, 32-bit wide, CD-ROM audio input connector and

mixer, Keyboard port is standard DIN connector for PC or Amiga keyboard (Auto-detection), Real time Clock, using NiCad, fits in any standard PC Desktop/Tower case, 2x, 16-bit Active ISA slots, in-line with 4 x Zorro III slots, Amiga Video slots, and Genlock slot. Connectors include: 26-pin header printer port, AV slot (for audio, composite and RGB signals), serial port with 10-pin header, Joystick &

mouse port, IDE - 40-pin (Dual), and Floppy drive DF0:/DF1.

The BoXeR's marketers are promising the newly designed board will improve performance while reducing system costs. They have even promised a processor connector to support a low cost PowerPC upgrade which is still in development. The 16-bit ISA slots will support low cost modems, Ethernet, Sound cards etc., the FlashROM will allow software and hardware updates, and a CD-ROM



The newly designed BoXeR motherboard will be sold as an OEM item to distributors and dealers to configure to the customer's needs.

Please send  
New Products Info to:  
**Amazing Computing,**  
P.O. Box 9490,  
Fall River, MA 02720  
FAX: 508 675 6002



filesystem is in ROM to allow the system to boot directly from CDs.

The BoXeR will be marketed and distributed through Blittersoft, 6 Drakes Mews, Crownhill Industry Milton Keynes, Bucks, MK8 0ER, United Kingdom. Tel: 44 (0)1908 261466, Fax: 44 (0)1908 261488. Website: [www.blittersoft.com](http://www.blittersoft.com), and email: [sales@blittersoft.com](mailto:sales@blittersoft.com).

Index Information Ltd. 60 High Street, Odiham, Hook, Hants, RG29 1LN, England. Tel: 44 (0) 1256 7034226, Fax: 44 (0) 1256 701023, Web: [www.cix.co.uk/~index](http://www.cix.co.uk/~index), email: [index@cix.co.uk](mailto:index@cix.co.uk).

### DCE Computer's A5000

DCE Computer Service GmbH (based in Oberhausen, Germany) is one of the leading available Amiga repair shops. DCE has recently announced the A5000, but don't let the name throw you. The A5000 (due in the first quarter of '98) is based on the Amiga 1200 design with an A6000 promised for Spring '98 in Europe based on the Amiga 4000.

DCE has already created a turbocard for Amiga 500 called the VIPER-520 CD. Features of the new Turbosystem include: 68EC020 with 33 MHz, true 32-bit Kickstart ROM Vers. 3.0 on board with 130 ns access (DCE states "You don't need a MMU, because the ROM will be read with full speed and you don't need Kickstart ROM 3.1."), 4 x IDE port for one 2.5" internal and three 3.5" external devices, 4 or 8 MB FAST



### DCE Computer's A5000

RAM on board, PGA socket for 68882 co-processor (up to 33 MHz) space for one 2.5" hard disk on the turbocard.

The A5000 will include a 50 MHz 68030 (full version, including MMU) as well as a socket for an optional 50 MHz 68882 FPU (Math co-processor), Kickstart 3.1 ROMs, 2 MB Chip RAM on-board, Up to 64MB of Fast Ram, using standard 72-pin SIMMs, standard 880KB floppy disk drive or optional 1.76MB High Density FD, four Zorro II sockets, full bus connector for MPEG and accelerator options, and for all future expansions, two IDE sockets, for up



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to 2 IDE devices each and support for ATAPI devices, 1.7 GB hard disk, from 10x to 24x speed CD-ROM drive, Scandoubler on-board, Optional Video modulator, Flash EPROM for future use, ATX comfort Tower, and a 30W power supply with a 110/230V auto-switch.

The A5000 will have a 9-pin (AT) serial connector, a 25-pin parallel connector, a 15-pin VGA connector, two standard 9-pin mouse/joystick connectors, a 5-pin connector for an Amiga keyboard, a 6-pin mini-DIN for PS/2 keyboards, two phono sockets for Amiga Audio out, and a phono socket for VideoComposite out.

While pricing is still unavailable for this unit, Power Computing will be the main distributor for the product in the UK. There has been no announcement for North American distribution.

Power Computing LTD, Unit 82A, Singer Way, Woburn Road Ind. Estate Kempston, Bedford MK42 7PU, ENGLAND  
DCE Computer Service GmbH, Kellenbergstr, 19 A, D 46145 - Oberhausen, Germany, Email: [dce@ruhr-net.de](mailto:dce@ruhr-net.de), URL: <http://www.dcecom.de>

### The Future

Unfortunately as of press time, none of these products are available for review. AC will continue to follow the announcements by all Amiga licensees as they develop.

•AC•

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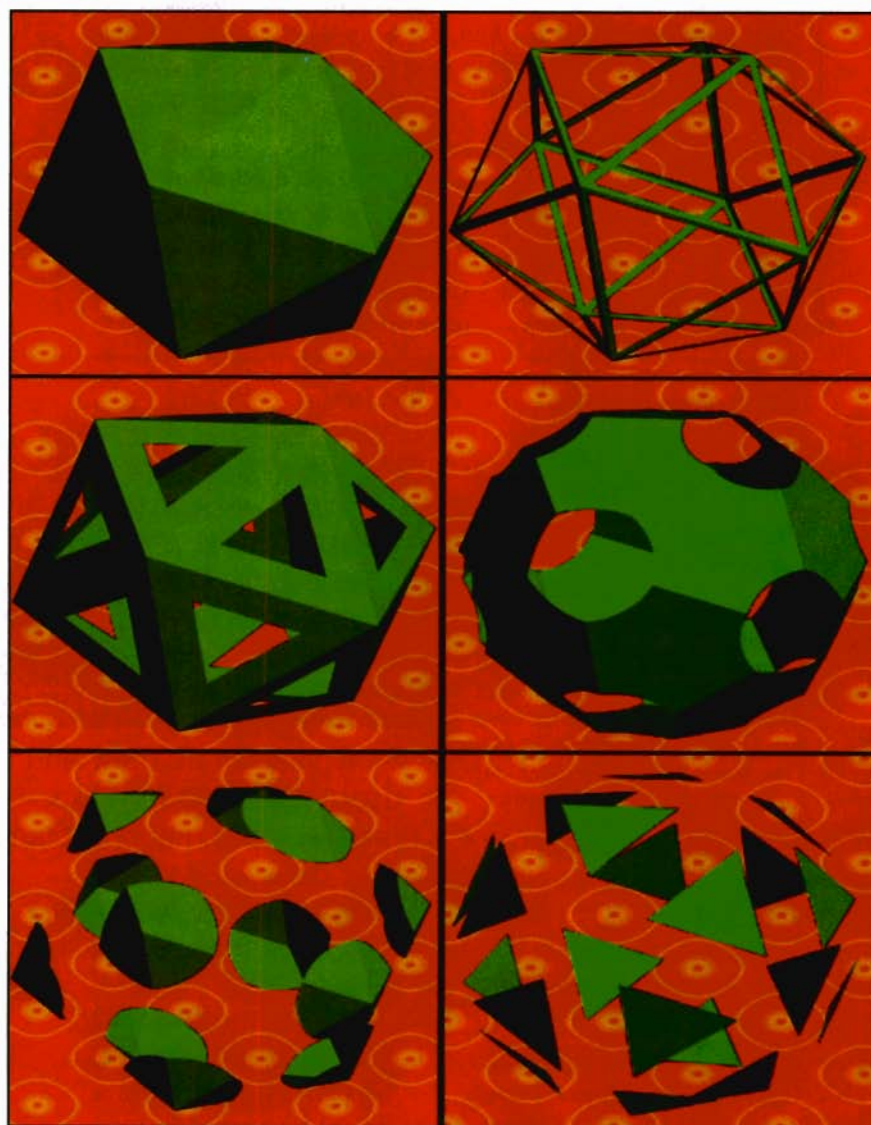


# Line Types as Textures

Tapping the unique features of Aladdin 4D's polygons.

by R. Shamms Mortier

When you get to know a piece of software so well that its capabilities are as natural as raising a finger to scratch your nose, it's all the more amazing to discover something new. No software is completely documented, and the better and deeper the software, the more unknown territory there is to explore. Aladdin 4D is very good and very deep, so I imagine that there are a thousand things still waiting to be tried, even for those of us who think we're totally familiar with its magic.



### Line Types as Textures

This time around, we're going to explore a brand new way to create object textures in Aladdin. In the last tutorial, we looked at Aladdin's wealth of Procedural Textures, and how they can be applied with various mappings to selected objects. "Line Types" may also be thought of as Procedurals, but procedurals of a different kind.

To understand Line Types, you need only think of the polygonal structure of an object. The polygons that make up a 3D object are bounded by edges, and those edges meet at specific points. The polygons also have centers that can be computed (the same centers are used to define a polygon's "normal", an imaginary line that starts at the center of a polygon and moves at a perpendicular to the polygon's surface). In essence, then, once the computer can track a polygon, it can easily track the associated edges, points, and centers. This is the stuff that Aladdin's Line Types are made of.

Usually, all of this data is translated into a surface that takes cognizance of the edges and points, as well as the Normal. But, as Greg Gorby (Aladdin's Captain Nemo) realized early on, there can be more here to meet the eye. If the Amiga is able to discern an edge, then it can just as easily use the same edge as part of a building block instruction for an

Figure 1: Here are some samples of the A4D Line Types, used to render an Icosahedron: Normal, small Edges, larger Edges, Point Center, Points, and Center.

object, one that varies from just using the edge as a polygonal barrier.

It's possible, for instance, to use a polygon's edge to build a skeletal structure, one whose width can be varied. A cube for example could be made to look like a structure built from girders, with no surface except for that covered by the girders themselves. The polygon's points could be utilized in the same way, so that the same cube could be rendered with small point associated areas sitting in midair, with no intervening surfaces. The normals could be used to allow you to configure small planes with the normal at the center.

All of this taken together means that even the simplest 3D primitive, or the most complex imported 3D object, can be rendered and visualized in a number of optional ways. These ways are called Line Types in Aladdin, and they lead to 3D objects that look like they are constructed from wireframes or small surfaces, leaving the balance of the object free from form and invisible.

Remember that all of these Line Types, just like Aladdin textures, can be animated on the Time Line. Animating a Line Type causes the targeted object to appear to move from solid to skeletal, or vice versa. To my knowledge, these are animation devices found in no other 3D software.

## Textures?

OK. But where do textures enter the picture? Line Types are surface descriptions, and as such, can accept surface information (like transparency, secularity, or textures) no matter how much room they take up. A wireframe Line Type can be addressed by a texture just as neatly as the associated polygon can. Please keep this in mind as we proceed.

## Line Type Options

In Aladdin 4D version 5, Line Types are selected and set in the Attributes requester under the Options tab. There are five Line Types: Normal (meaning "standard", not the polygon's "normal"), Edges, Center, Points, and Point Center. If you look at the illustrations for this article, the differences amongst these settings are plainly visible. All of this material is further referenced in the A4D5 documentation. The following ideas for using the line Types is not covered in the documentation, and I don't think it's available anywhere outside of this article. It is, to put it clearly, a brand new way to explore the rendering of 3D objects.

## Try This!

Using a Line Type on an object means that the object will necessarily render with some clear space that you can see through. The amount of clear space depends upon what dimensions are input regarding

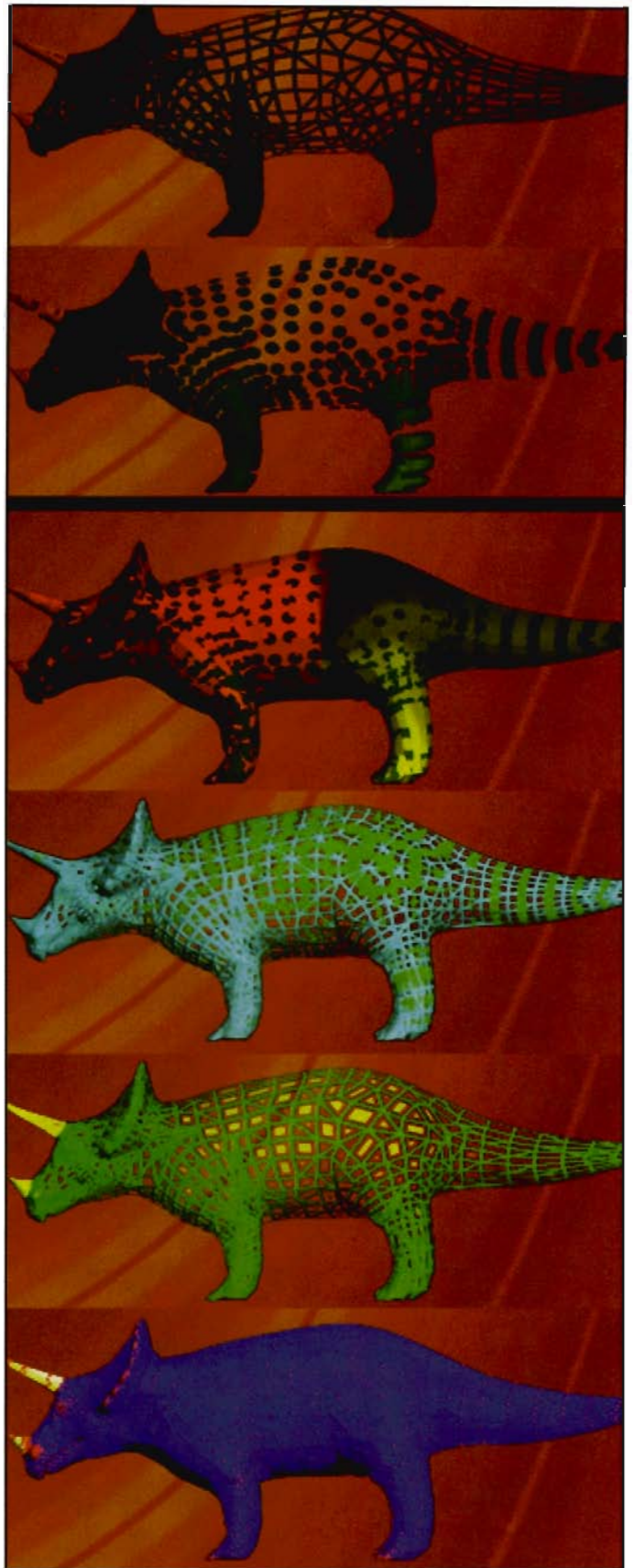


Figure 2. Using the techniques described in the article on this imported LightWave object, the rendered Aladdin Line Types display composite animated textures. The top two figures use only one line Type, while the bottom four show composited Line Types.





Figure 3. As the images of the extinct triceratops look on, the elephant marches towards an uncertain future.

the size of the Line Type selected. A larger "edge" Line Type for instance, will cover the whole object just as if you had selected the Normal Line Type (which forces the intervening polygons to render as usual). A very small Edge Line Type dimension will result in a pencil-thin wireframe that delineates the object, with a lot of empty space in between.

The secret of using Line Types to emulate strange texture components can be explained in one word: compositing. "Compositing" in the A4D sense, is made possible by Aladdin's capability to jump selected 3D objects (or even parts of objects) into a new design space.

Hopefully, you are already aware of this from reading the Aladdin documentation on how this is accomplished. If it seems new to you, please read the documentation again, unfortunately, our tutorials will not have the space to repeat the basics.

In the steps listed below, it is taken for granted that you are aware of the process that allows you to jump selected object elements into another design space. To explore Line Type texturing, do the following:

1. Create or import a 3D model. Select the model, and bring up the Attributes list. Select new, and go to the options tab.
2. In the Options tab, next to the Line Types callout, select the Edge option. Input a moderate size of 100, and click on Okay to accept the setting.
3. Render the model to appreciate the results of your Line Type selection.

Now lets move up the explorational ladder one notch.

1. Create or import a 3D model. Clone the model, and without moving the original or the clone, jump the clone into a new design space.
2. In the new design space, without moving the position of the model, enlarge it by 5% (make sure to enlarge it from the object center, and not an edge).
3. In the Line Type section of the Attribute's Option tab, target the clone for an Edge Line Type, sized at 100.

4. Return to the original model, and use the same process to assign a Point Line Type of 200 to it. Assign a different color texture to the original object and the clone in the other design space. Without moving the cloned object in space, jump it back to the original drawing space. It will be positioned like a second skin over the original model.

When you render the objects, you will be able to see through the cloned model to the original model, and the Line Types (including the textures assigned to them) will seem to merge. The fun comes in when you select different starting and ending dimensions for both Line Types, and watch the animated interplay between the two. See the illustrations for an idea of the effects that can be generated.

Hey! Have some fun! See you next time in ROMulan space, when our A4D tutorial will look at applying bitmap textures.

•AC•



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1. Above pricing is for repair of basic Amiga PC Boards only and does not include floppies or hard drives.
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- 40 MHz CPU packages are also available - call for prices.
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# PageStream 3.3: A Year in the Making

**Soft Logik listened to their customers and supplied the newest version of PageStream for the Amiga with a load of bells and whistles.**

*by R. Shamms Mortier*

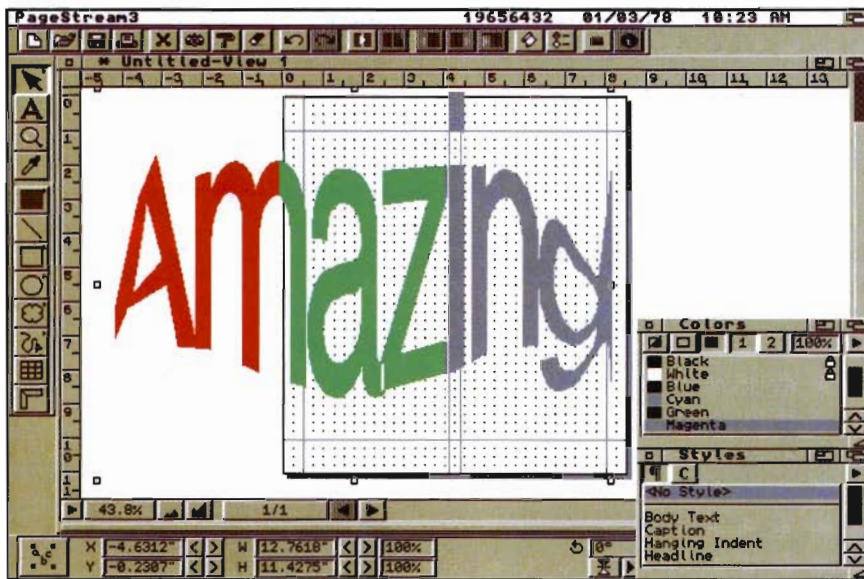


Figure 1. Just by selecting a curve or a shape, and shift-selecting a text block, you can create intricate curved text in PageStream.

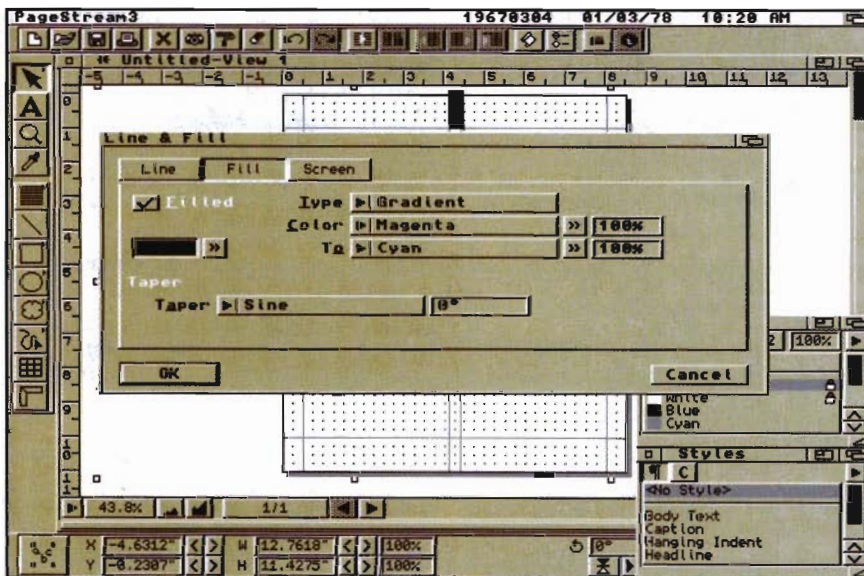


Figure 2. The Line and Fill requester gives you easy access to customizing gradients and other fills.

PageStream is the Amiga's primary DTP engine. With over a year in development, this new PageStream release is going to be much appreciated by dedicated PageStream users, as well as attracting a new audience. There are so many new features and revisions in PageStream 3.3 that it's impossible to fully describe them all in detail. Soft Logik stays in very close touch with its user base, so close in fact, that they have implemented changes in version 3.3 that are not necessarily their priorities, but rather alterations that reflect user feedback and stated needs. Here's a brief rundown of the new and revised goodies.

**Fly Out Tools:** Tools have now been grouped together in "popup" like icon lists that let you switch between tools quickly.

**Rotation Tool:** This new tool is now grouped with Object Tool, Reshape Tool, and the Crop tool. Set the rotation point of object(s), and you can rotate it right on screen. Also slant and/or twist with keyboard qualifiers.

**1, 2, & 3 Column Tool:** Switch between the 3 most common column counts in a text frame without changing your Prefs.

**Note Tool:** Create a yellow non-printing column resembling a sticky note.

**Scallop, Bevel, Insert Box Tool:** Pick a corner type from the toolbox.

**Star, Wavy, Scallop, Puffy Polygon Tool:** Quickly switch between drawing these polygon types without changing your Prefs between them. In the future, new polygon types such as gears will be added.



**Grid Tool:** This was revived from version 3.2.

**Define Font Substitution:** Load a pre version 3.3 document. If it uses a font you don't have, it will let you know what fonts are in use that you don't have installed and give you a chance to replace those fonts with another font. It will also allow you to just display it in another font but retain the original font. Load a document from another machine or even from another platform.

**Improved Adobe Illustrator Import/Export Filter:** Export to Illustrator and expect it to maintain as much integrity as possible when importing into another application that supports Illustrator files. This is a much needed improvement.

**RTF Text Export:** Exchange files with WordPerfect PC or Microsoft Word with most of the formatting intact.

**Automatic Text Frame "Like" Toggle:** When you import text with Auto Text Frames on, any overflow text will be placed into columns created on blank pages. Choose to have the new columns created with the same coordinates, count and gutter (and even the same color) as the last column in the article.

**PostScript Style Dash Line:** You can still define line dash styles using the old familiar bitmap on/off manner, but you can also describe the individual dash lengths as you do in PostScript and applications such as Adobe Illustrator and ProDraw.

**Set Type Language Submenu:** Installed languages are now in a submenu in the Type menu. Select one of these and your page numbers, dates, times and hyphenation will change to reflect that language if you didn't specify it in the aforementioned attributes. Language can also be set in the Attributes dialog box, and can be defined for paragraph and character style tags.

**DPI Calculator:** Type in the x/y dpi that you want the selected picture scaled to and PageStream does the calculation.

**Improved Color Palette:** Now, set the tint percentage directly from the palette. Gradient colors can now also be set directly from the palette. Swatches in the color palette now let you identify what the color actually looks like, though to use this

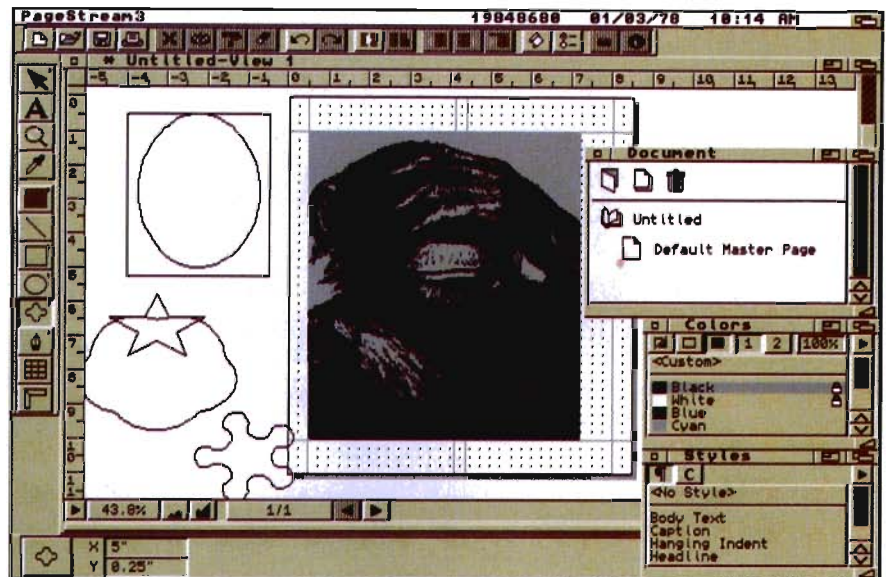


Figure 3. PageStream 3.3 carries on the PageStream tradition with a clean and intuitive interface design.

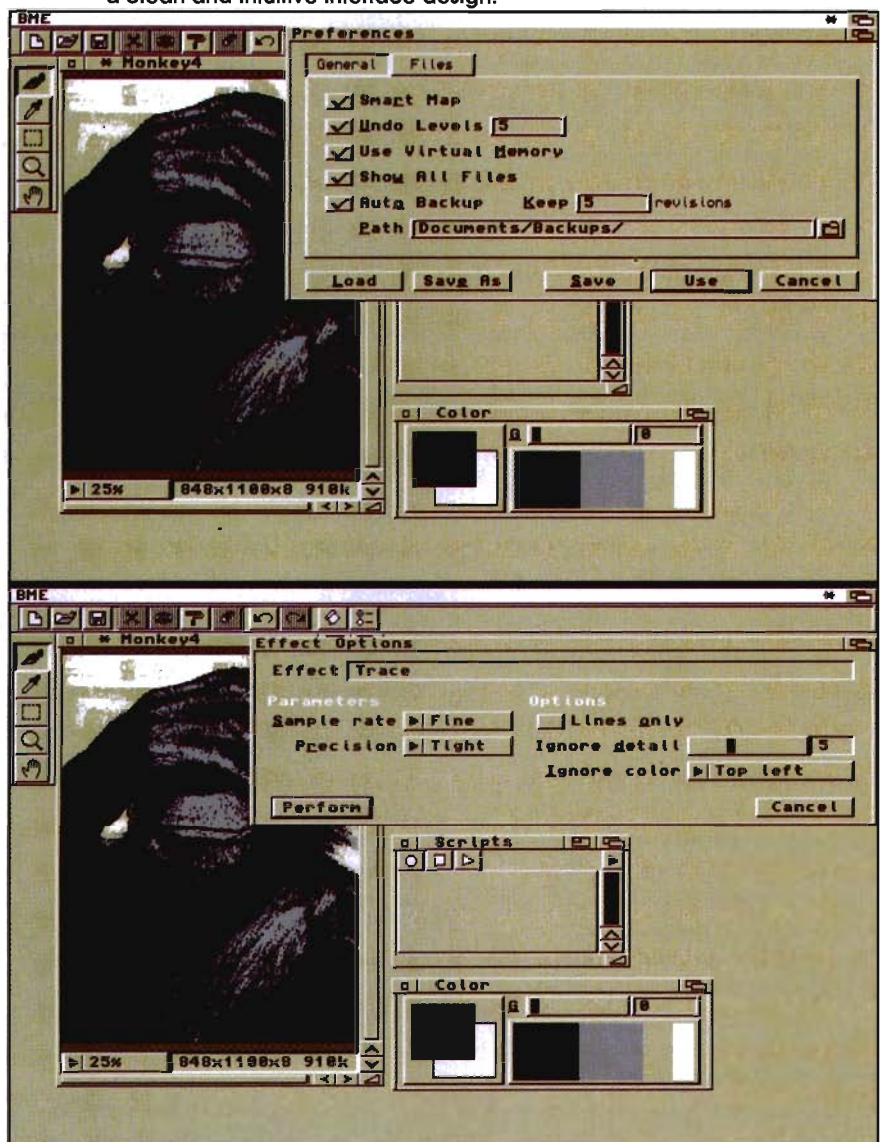


Figure 4. The PageStream BME (Bit Map Editor) module allows you to transform bitmap images into vector art.



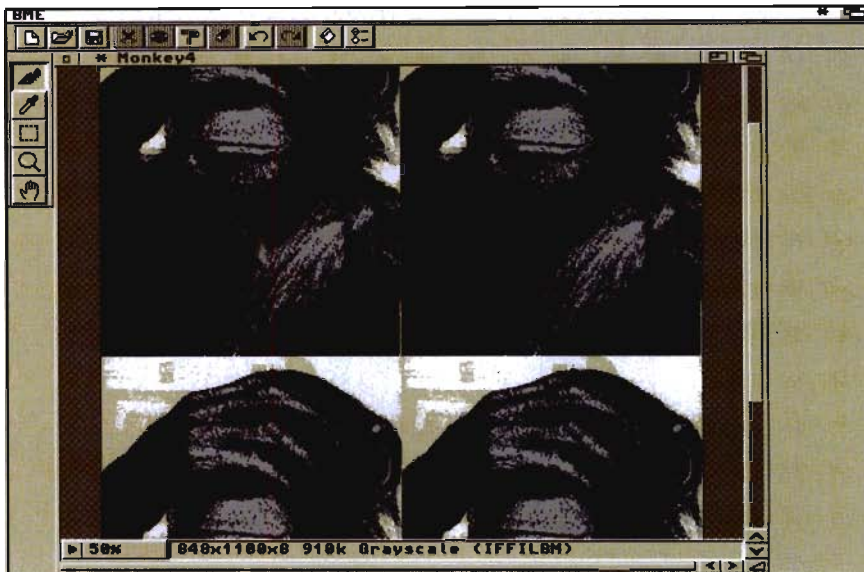


Figure 5. Tiled vector art can be generated inside of PageStream's BME module.

function, you have to be displaying at least 32 colors (AGA machines work best here).

**Auto Page Orientation:** Mix landscape and portrait in a single document and print at once.

**Drag Duplicate:** When you are moving objects with the Object Tool, or rotating them with the Rotate Tool, hold down the Alt (or Option) key and let go of the mouse button. Your original object will still be in the same place, but a duplicate will be placed in the new location.

**Tab/Shift-Tab:** Cycle through objects. Pressing Tab/Shift-Tab cycles through objects on the current page.

**New Toolbar buttons:** View pictures/drawings/column outline/text framelinks/invisibles

**Improved Chapter and Pages Support:** Chapters can now be moved into and out of parent chapters. Pages can be moved from a document to a new chapter.

**Set screen frequency/angle/spot function:** Now non-PostScript users can set Halftone dither and more. 10dpi line spot functions for special effects, or setting frequency/angle for each ink on your color printer.

**Improved Ordered and FS dither options:** The Ordered and FS dithers now use a bigger cell size when you print at higher resolutions, resulting in less banding on gradients and more recognizable shades of gray and color.

**NEW:** Mirror, Negative, Thumbnail, Crop & Registration marks.

#### Advanced Color Separation Support:

Color seps to non-PostScript, in direct response to user requests.

**Colorization:** Colorize B&W or Grayscale pictures.

**Load/Save printer Prefs:** Load/Save miniprefs from the printer Prefs folder, and switch between needed printer types instantly.

**Preview color seps on screen:** Show the color plates one at a time to make sure you have right spot colors or overprint/knockout options in place.

**Advanced HP Support:** HP driver support for user editable XPD file.

**Easier reselection of relocated external pictures:** PageStream remembers where you helped it find each relocated graphic, and looks there for others before asking you where they are.

**Unsupported accent characters displayed as unaccented:** Not every font supports every accented character. If it can't find the accented character it will use the unaccented character.

**Configurable Paper and DPI list in a new ILBM XPD file:** Configure the ILBM printer driver for any DPI or paper size you want. No more need to type strange Unicode characters to access characters not found in the standard system fonts.

**New Text Options:** Text marks with accented characters in their name now show in the Insert Text Mark Name and Page Number popups properly; Internal changes for loading/

saving of style tags for support on other platforms, plus improved text processing on loading/importing of text; New arrows in edit palette for leading now work for fixed leading; Smart open single/double quotes inside of open single/double quotes fixed.

**New Objects Options:** Drawing & Picture x-box place holders are now clipped by the mask, and the Picture Stroke now displays properly. Edit zero height and/or width objects without lockup. Duplicated external pictures now show the proper resolution in the Information dialog box. Objects on dissolved spreads will now be placed on the page where the center of the object lies and not the upper left hand corner. A new fix for making/generating/releasing of masks for resized graphics has been added. B&W and Grayscale pictures can now be colored using object fill color. When dragging object(s) with the object tool, pressing and holding ALT key will now create a copy when releasing the mouse. The Rotation tool now includes a Free rotate option, and the rotation point can now be selected and moved. The Magnify Tool can now drag zoom from either center or corner.

**New Linefill Option:** Support added for defining line style using PostScript dashed style lines in addition to existing pattern in line/fill for objects and text.

**New Document Options:** Selecting and editing a page other than the current page using the page palette will now edit the proper page. For Font substitution, documents, text, or graphics loaded with unrecognizable fonts will result in a dialog box with the list of unknown fonts and present the choice to display as a different font or replace the references. Chapters can now be moved into and out of parent chapters using the document palette. Now, when creating a new chapter, holding down the SHIFT key when choosing OK will move pages from the document into the new chapter. Paper orientation is automatically adjusted to best fit page orientation.

**New Postscript Printing Options:** Gradient for Sin/InvSin/Saw/InvSaw



fixed for angles greater than 90 degrees. Printing of stroked masked Pictures, Drawings, and EPS was fixed. Support for CMYK bitmap output to Level 2 PostScript printers has been added. Auto landscape support has been added, as well as colorized picture support.

#### **New Non-Postscript Printing Options:**

Page height, top & bottom margins now calculate properly for non-square aspect ratios, and Landscape printing of bitmap fills now rotate with the page. Screen frequency/angle/ and spot function can now be set for halftone dither printing.

#### **New Interface Alterations:**

Masterpages can now be moved between chapters after being created. In plate control, clicking on the icons in the list will now toggle that option as if you had clicked on the popup or check box. Toolbar buttons for View-> Show Pictures, Drawings, Column Outline, Text Frame Links, and Invisibles have been added, as well as Flyout tools to reduce toolbox size and increase the number of readily available tools.

#### **New Drawing Tools:**

One/Two/Three count columns, Scallop/Inset/Bevel boxes, Pie ellipse, Star/Scallop/Puffy/Wavy polygons.

#### **New Scripting Options:**

The Script Palette now will keep the old scripts if you try and load an illegal script file instead of leaving you with no scripts loaded. A large number of new and revised scripting commands have been added in version 3.3.

#### **New Filter Options:**

Compression speed-ups of IFF ILBM files, RTF-ANSI files now use Windows character set and not Amiga, reintroduction of the ProPage document loader, long number support to the Espanol (Spanish) module added, as well as a new Slovenian language module, and a new export option for text to RTF for importing into many Windows and Macintosh applications with most formatting preserved.

#### **BME Fixes:**

Internal changes for loading/saving of scripts for support on other platforms, and Greyscale/B&W to CMYK conversion no longer creates any color in the CMY plates, just Black.

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Circle 158 on Reader Service card.

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### **PageStream's Planned Future**

The next version may be 3.4 or 4.0. A large list of new features is in the works. Which features will be chosen depends a lot on user feedback. Registered users can contact Deron Kazmaier SoftLogik Publishing Corporation with feedback suggestions. Just send e-mail to [listserv@softlogik.com](mailto:listserv@softlogik.com). In the body of the message, type "subscribe pgs33list email@domain.com". Directions for posting to the list is provided in a welcome message after you join.

### **PageStream 3 Extras and Utilities**

**Borders1 Library (\$40):** 60 borders, including coupon, map and symbol designs.

**Borders2 Library (\$40):** 60 decorative borders in a variety of designs including nature, classic, and music.

**TextFX 2 Extension (\$50):** Warp text in shapes, bend text on curves, and convert text to graphics.

**TrueType Font Engine (\$25):** Use TrueType fonts with PageStream 3+.

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**Gary's Effects (\$25):** Twelve effects for PageStream 3's BME, including Convolve, Blur, Histogram, Gamma, Average, Threshold and more.

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•AC•



# CUT IT OUT!

## MAKING A STENCIL HEADLINE EFFECT

*by Nick Cook*

You may have noticed a trendy new headline treatment popping up in various layouts: a cut out. The effect is as though holding a stencil slightly above the page. The light falls through the cut out letters, casting a shadow on the page below. This effect is easily reproduced with Amiga programs such as PageStream, Personal Paint and any image processor.

### Pagestream 3

**STEP ONE:** Enter your text. Click on the arrow icon, then on the text to make it an object.

**STEP TWO:** You need to reverse this text; that is, make it white lettering on a black background. Go to the Object menu's Line & Fill requester and select black as the fill color.

**STEP THREE:** And your text vanishes.

Well, black characters on black background, and all that. Without clicking on anything else, click on the text icon. The text entered in Step One will be automatically highlighted. Go to the Type>Line & Fill menu item, and pick white as the fill color (Figure 1 top). You may want to add an extra black rectangle to the top of the text object. This gives you more "fiddle room" for Step Nine.

**STEP FOUR:** "Print" the text created in Step Three as an IFF, with a 75 dpi in PageStream's Print Setup Requester. Saving at a higher dpi increases image quality, but it also makes the resulting text image larger. That will cause problems later on. Be sure to save the original document if you need to quit PageStream!

**STEP FIVE:** Load the text graphic into your image processing program and apply the blur filter. Don't modify the text in the image processing program in any other way; for example, don't crop it. If you do, the saved image may become a different size than the original text. Reload the blurred text into PageStream (Figure 1 second from top).

**STEP SIX:** Draw an unfilled rectangle around the text object created in Step Three. Use the Object>Align command to get the text positioned inside the rectangle correctly.



Figure 1: The process of creating the stencil effect from start (top) to finish (bottom) in PageStream 3.



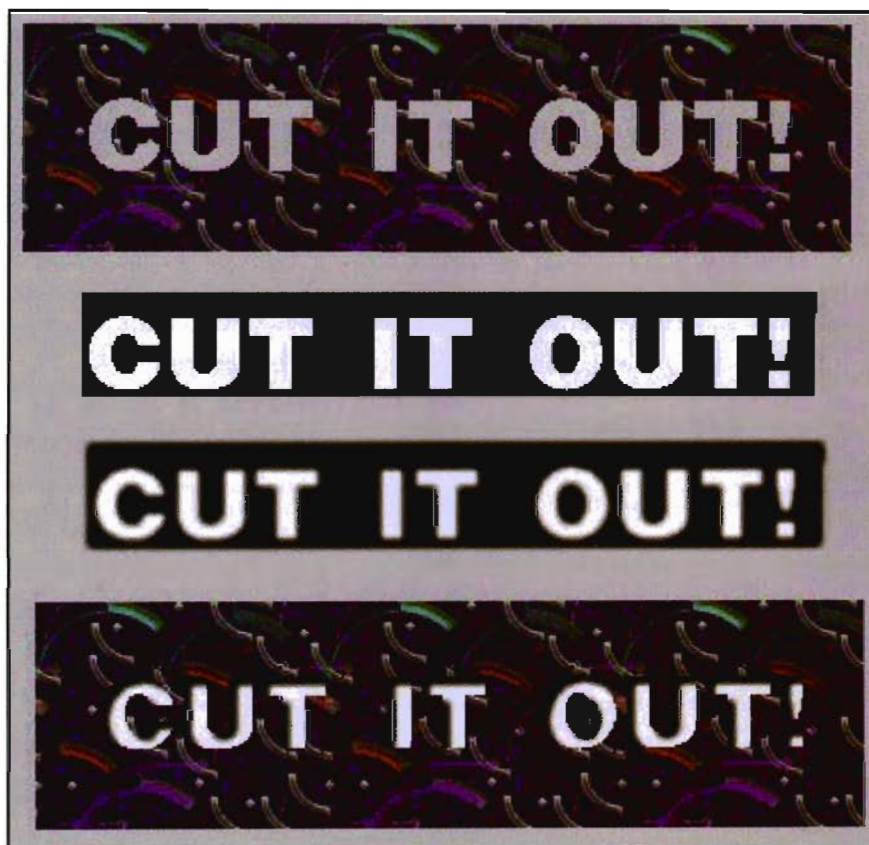


Figure 2: The same effect performed in bitmapped graphics in Personal Paint.

**STEP SEVEN:** With both the rectangle and the text object active, choose the Object>Merge Paths menu item. This creates a compound object, in which overlapping objects leave a "hole." In this case, the characters will become transparent (Figure 1, third from top). You will probably want to change the compound object's color and/or pattern fill, unless basic black is your choice.

**STEP NINE:** Stack the object created in Step Seven slightly above and to the left of the blurred text (Figure 1, bottom).

The PageStream compound object can't be filled with a bitmap image. If you want to do this, "print" the product made in Step Nine to an IFF. Import the IFF into your favorite paint program and fill the object with a desired bitmap. The article's title graphic was created in PageStream with the fill added in Personal Paint.

### Personal Paint

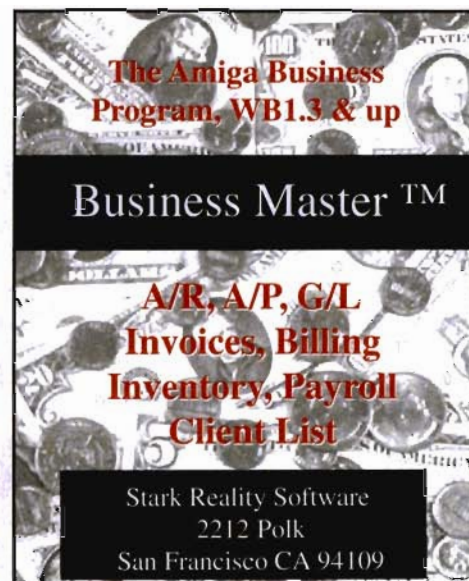
**STEP ONE:** Load a texture bitmap as a brush and remap the colors if needed. Click on the Fill icon with the right mouse button, and select the brush as the pattern fill.

**STEP TWO:** Click on the filled rectangle icon, and drag out your text's background.

**STEP THREE:** Somewhere else on the screen, enter your text in white.

**STEP FOUR:** Hit the "b" key (or click the cut icon) to start the cutting tool. Holding down the left mouse button, drag the bounding box around the text. Release the button to pick it up.

**STEP FIVE:** Stamp the text on the texture background. Change the fill type to solid (check Step One if you need a memory jog). Fill each letter with the transparent color zero (Figure 2 top).



Circle 126 on Reader Service card.

**STEP SIX:** Select the black color. Click on the filled rectangle icon, and drag out a rectangle somewhat larger than the text.

**STEP SEVEN:** Hit the "b" key (or click the cut icon) and pick up the white text. Stamp it in the lower portion of the black rectangle (Figure 2 second from top).

**STEP EIGHT:** Pick up the white text and black rectangle as a brush. Select Process from the Brush menu. When the list of effects appears, pick Blur High and click Proceed.

**STEP NINE:** Stamp down the blurred text. Pick up the text object created in Step Five. Stamp it slightly above and to the left of the blurred text (Figure 2, bottom).

And there you have it. Create trendy effects with an "old" computer. Works for me!

•AC•

Please Write to:  
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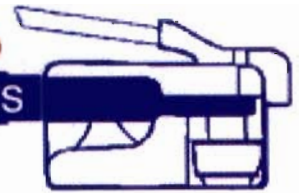
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# on line

amiga telecommunications

by  
Rob  
Hays



**AWeb delivers a variety of features to your Amiga to ease your surf through the internet.**

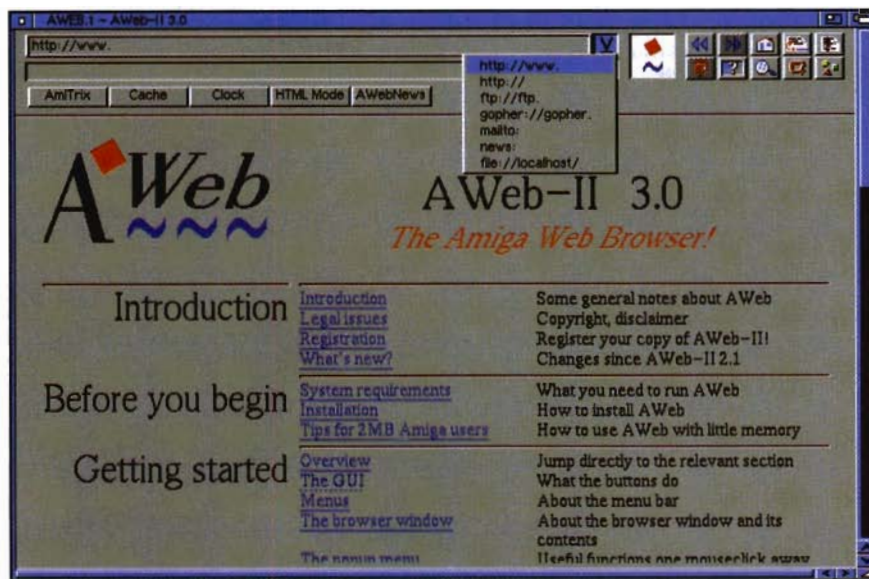


Figure 1: AWeb-II, the Amiga browser that dares to be different. The handy shortcuts (see insert top center) can save a lot of typing.

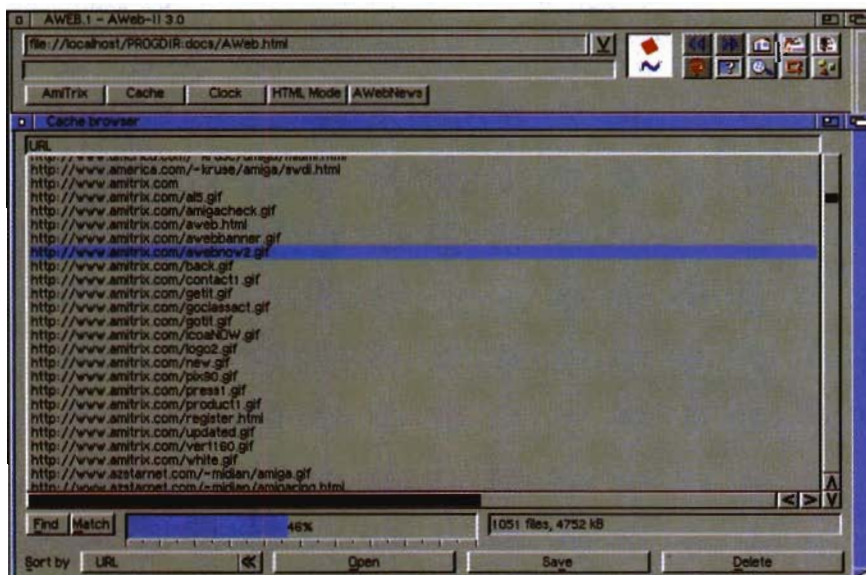


Figure 2: The Cache Browser makes it easy to review sites you have visited.

As promised, this month we will focus on the AWebII web browser. Begun in 1995 by Yvon Rozijin, AWeb set out to prove the old saying "there is more than one way to skin a cat". At a time when the prevailing wisdom said that a graphical web browser would have to use the Magic User Interface system to display its Graphical User Interface, AWeb stuck with the standard Amiga interface software.

Now known as AWeb-II, and distributed by AmiTriX Development, Aweb still shuns MUI, but does require some interface capabilities not provided by the aging Amiga Operating System. The Class Act gadget kit is used for the GUI, and is included with the AWeb-II distribution. This system is free to users, so there is no additional registration fees or purchases required. Also included are a number of other "goodies" we will look at later.

The only things not included with the distribution that are required for a working setup is a TCP/IP stack, and an e-mail program. An included program allows you to send e-mail to an embedded mailto link in web pages, but can't function as a full-fledged mail program. AWeb-II works well with AmiTCP/IP, Termite TCP, or Miami.

Install AWeb-II and any or all of its optional parts using the provided Installer script. You can return later to add any of the options you skipped over the first time. Supplied on three



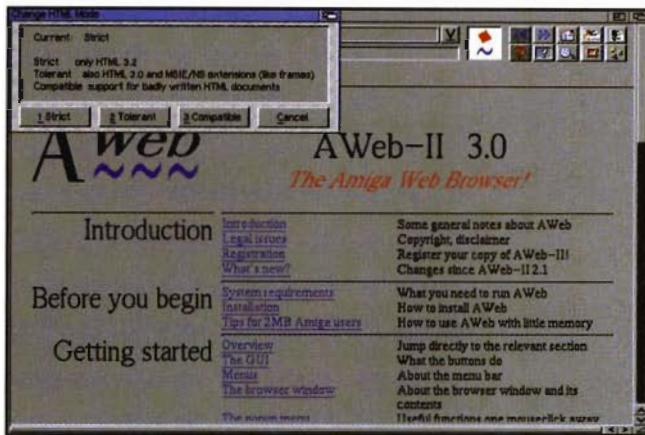


Figure 3: Be as strict or as tolerant as you need to be.

floppies, the files are organized to keep disk shuffling to a minimum.

The end result is shown in Figure 1. The top text box is the address of the web page you want to visit. Click and hold the gadget on the right side of this window, and a shortcut list of typical prefixes appears to choose from (as shown in Figure 1).

Below this is the status display box that shows network connection progress, and file download progress. To the right of these are a series of buttons for navigation through the window history, jump to your Home page, add the current page to your Hotlist, or open your Hotlist. You can also search the current page for words or phrases, control the loading of the current page or its graphics, or open the Network Status window.

This last gives current status on the various tasks in progress. If you happen to hit a site that seems to be taking forever to display, check the status window. If one or two particular files are downloading very slowly, or not at all, you can abort those tasks without aborting the entire site.

The row of hotlink buttons below the status display box can be fully customized, and unlike similar buttons on other browsers, they can do much more. You can set up buttons to run ARExx programs, use any of the 60+ included ARExx commands, and more. In fact, the combination of AWeb-II and ARExx are so powerful, it is possible to use AWeb-II as the user interface to other programs, and issue AmigaDos commands.

As you surf about the Web, the images, text, and HTML are saved from every page you visit. These all go into a special directory called the cache, ready to be reloaded more rapidly if you return to a previously visited page. You can control how much hard drive space and memory you want to trade for this advantage.

The Cache Browser displays a list of everything saved from your travels, sorted by URL, type, or date (Figure 2). Double click on any entry, and that item is loaded into the main AWeb window. You can search for known words, highlight all entries that match a search string, and check cache usage from this display. You can also save or delete files.

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Another unique feature is accessed via the HTML Mode hotlink button (Figure 3). This window allows you to choose between three various levels of HTML compliance. You can have AWeb-II conform strictly to the HTML 3.2 standard, or because some popular web features such as frames are not part of 3.2, you can be a little more tolerant

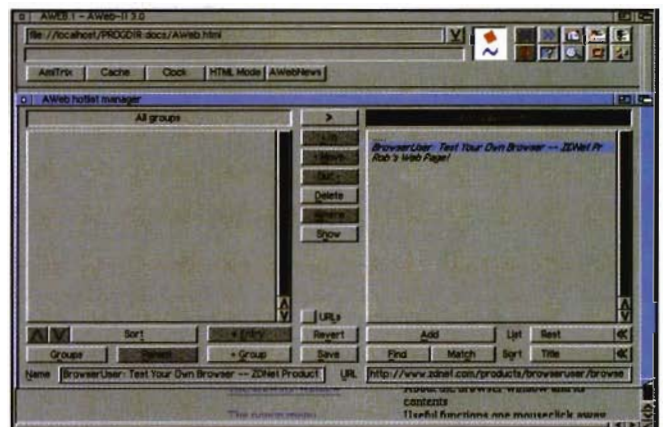


Figure 4: The Hotlist Manager can keep your favorite Web sites straight.

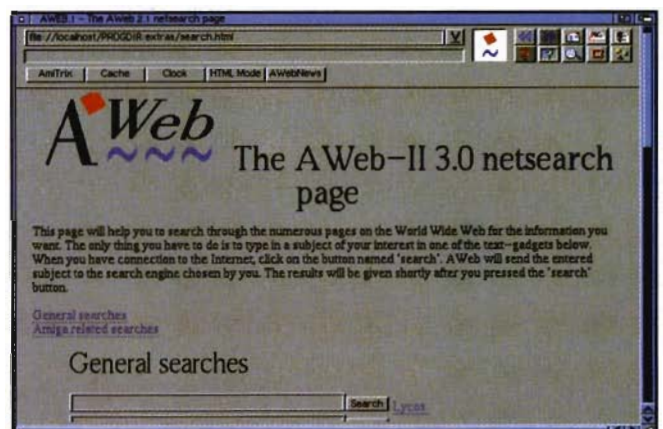


Figure 5: Search several places at once for the information you need.



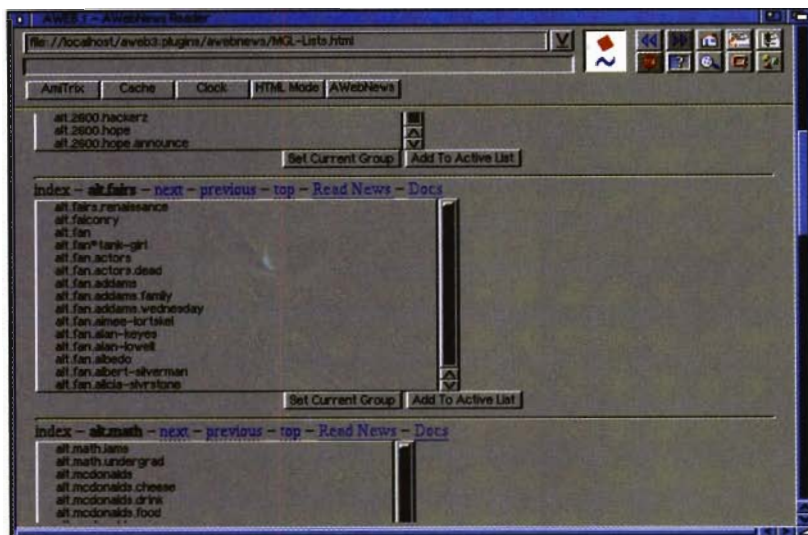


Figure 6: Finding your way among thousands of newsgroups couldn't be much simpler.

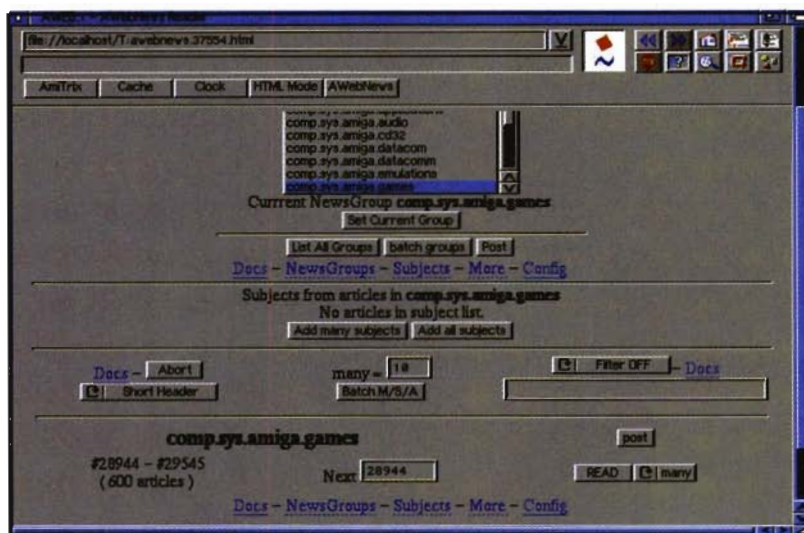


Figure 7: Keep the groups that count easy to access.

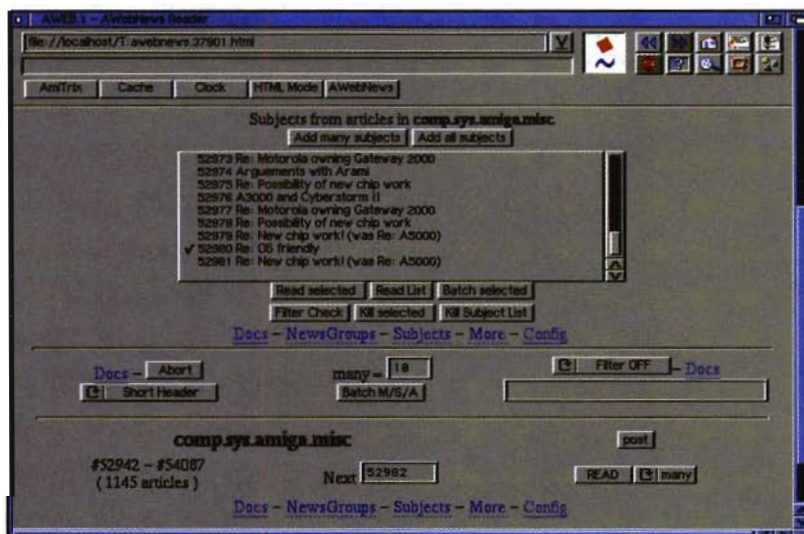


Figure 8: Check off individual articles to read, and because it is HTML, documentation is just a click away.

and allow them to display correctly. If you run across sites with poor HTML coding, click the compatible button, and at least increase the chance that they will display.

As you collect favorite sites in your Hotlist, organization can become important. The Hotlist Manager (Figure 4) gives you the option to put various sites into groups for easier display and navigation. Powerful search functions let you locate sites when you don't remember the name.

Speaking of searches, the Netsearch function (Figure 5) allows you to search 15 general search engines, and 10 Amiga specific engines, from one page. You can even search different locations for different items, all at once.

The AWebNews button activates the built in newsgroup program. This is a series of pages that give you control over the reading and posting to Usenet newsgroups. In fact it works like a website devoted to newsgroups, with embedded links to move between sections and functions. Like other aspects of AWeb-II, this is so flexible and adoptable, that it can be a bit daunting at first.

The listing of available newsgroups can be displayed either as a page of HTML links, one link per newsgroup, or as a series of scrolling lists (Figure 6). The latter takes up less disk space, and since the lists are broken into various categories, it is much easier to find a specific newsgroup.

After choosing the newsgroup, or groups you want to read (Figure 7), you can retrieve single subject headers, or multiples of whatever number you choose to deal with. Select the individual articles you wish to read, and click the appropriate button (Figure 8), and the article text is displayed.

The way AWeb-II handles "cookies" is also flexible and adoptable. If you aren't familiar with the term, a cookie is a small file the browser can be asked to save to your hard drive by a server. They are used to provide a level of interactivity to browsing. They can also be used to track your web browsing habits by marketing people, or others. With AWeb-II you can choose between three levels of security for handling cookies.



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Circle 120 on Reader Service card.

You can even have a list of sites that you want to never accept a cookie from. AWeb-II will reject cookies from these sites regardless of any other current settings. I have run out of space, and we have only scratched the surface. I haven't even mentioned the other programs Amitrix includes with AWeb-II, like HTML-Heaven, or the FTP Mount program, that puts the Internet on your Workbench. These will have to wait until next month.

In the meantime, you can get the demo version of AWeb-II from Aminet, in the biz/demo subdirectory. The file name is Aweb.lha and is 413k in size. More information can also be found at: <http://www.amitrix.com>

### Where To Find Me

rhays@kiva.net  
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 rhays@amigazone.com  
 R.Hays5 on Genie  
 72764,2066 on CompuServe

### For U.S.Mail:

Rob Hays  
 P.O.Box 194  
 Bloomington, IN 47402

Please include a SASE if you need a personal reply.

If you run an Amiga specific BBS, send me the information callers will need to access your system. Phone number(s), modem speeds, software settings, etc. As a service to the Amiga community I will include the information I receive in this column from time to time.

If you come across any World Wide Web sites you feel would be of interest to the Amiga community, pass them along for inclusion in the HotList of the Month. Send the info to any of my addresses above.

That's all for now. See you on line!

•AC•

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# This Old Workbench: Episode 14

## 24-Bit Datatype Redux

A discussion of the latest 24-bit datatypes  
as well as other interesting utilities  
available through Aminet downloads!

by Dave Matthews

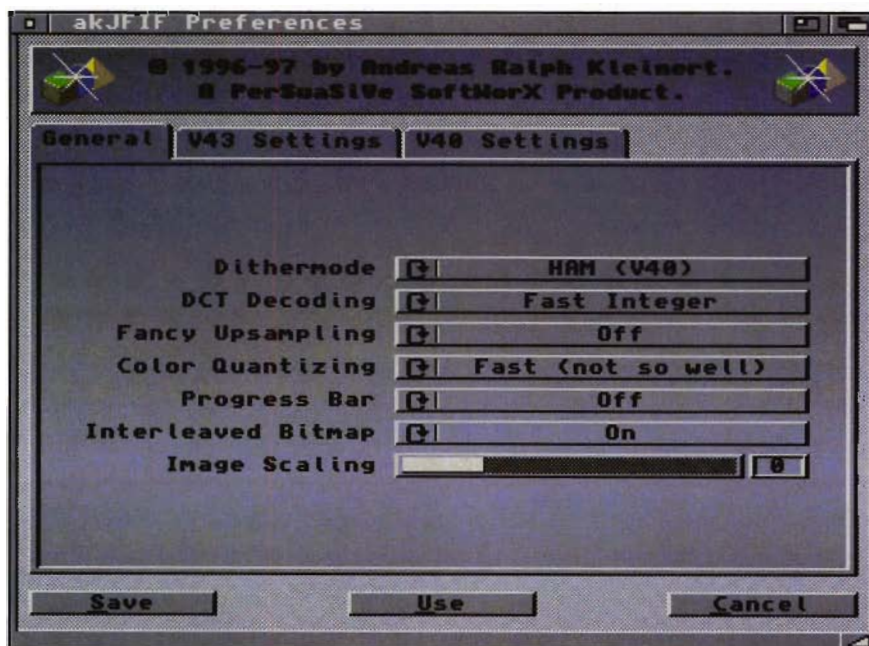


Figure 1: AKJFIF Datatype Preferences

This episode, I'm going to look at the latest 24-bit datatypes, as well as some other goodies available on Aminet. I have also covered some (erk!) Windows 95 programs, which ironically, can make your Amiga computing more pleasant (see Windows 95 Goodies for Amigoids on page 32).

### Picture.datatype V43.762 for CGraphX

In a previous episode, I covered Ralph Schmidt's 24-bit Picture.datatype. Since that article, this datatype has undergone several revisions, and the latest version is available on Aminet. While this datatype no longer expires after a certain period, there is bad news for some of us, however; the author has dropped support for AGA machines, and this datatype is strictly for Cybergrafx users. Find the file on Aminet: util/dtype/PictDT43.lha

### Picasso96 (V1.32) system for Amiga graphics boards

All hope is not lost, mind you! There is a 24-bit picture datatype with support for AGA available, in the Picasso graphics system (at Aminet: gfx/board/Picasso96.lha). This software is similar to the Cybergrafx software, an attempt to create a retartgetable graphics standard which frees programs from having to write separate code for different graphics hardware.

You don't need to install the entire Picasso96 package (in fact, if you don't have a supported grafx card, the installer won't even let you). All you need to do is copy picture.datatype from the classes/datatypes drawer in the Picasso96.lha archive to Sys:classes/datatypes. You should probably make a backup copy of your current

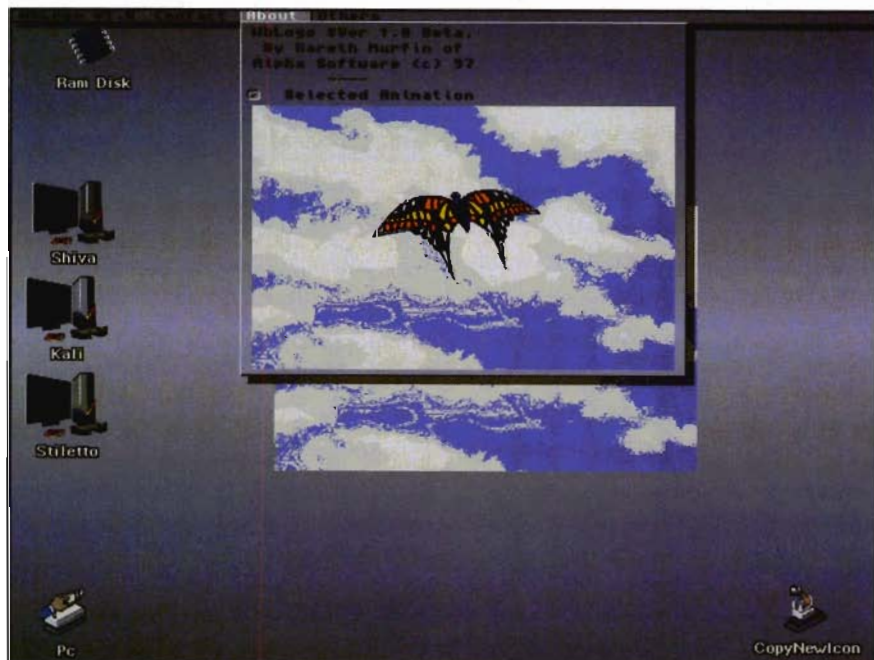


Figure 2: Animated Workbench Backdrops



picture.datatype, in case you have any problems.

While most (all the ones I tried anyway) datatypes will work with the Picasso96 datatype, not all will support 24-bit picture data. There are several datatypes which do support 24-bit datatype images. In general if a datatype says it is compatible with the v43 picture datatype, or claims to be 24-bit, it should work with the Picasso96 datatype. You might want to try the following.

Andreas Kleiner has released several datatypes which are compatible with the 24-bit Picture.datatype. These have many features, numerous options, and a nice GUI for the preferences programs. See Figure 1 for a screen shot. AkPNG-dt V43.130 (PNG, 68000-060)

Author: Andreas\_Kleinert@t-online.de

Aminet: util/dtype/akpng43x.lha

AkJFIF-dt V43.130 (JPEG, 68000-060)

Author: Andreas\_Kleinert@t-online.de

Aminet: util/dtype/akJFIF43x.lha

Here are some additional support products you may want to have around:

Replacement for ilbm.datatype V43.x (44.3)

Author: Stephan Rupprecht

Aminet: util/dtype/ILBMDT44.lha

Bmp picture datatype v40.8 for >= OS 3.0

Author: gniki@informatik.uni-rostock.de (Gunther Nikl)

Aminet: util/dtype/BMPdt.lha

V43.2 datatype for TIFF files.

Author: bert.wynants@innet.be

Aminet: util/dtype/TIFFDT.lha

Datatype for Targa or TGA images, V 43.1

Author: luyten@caiw.nl

(Arthur Pijpers)

Uploader: luyten@caiw.nl (A Pijpers)

Aminet: util/dtype/targatype.lha

And now for something completely different:

## The Key to LZX

It's good news bad news time in regards to LZX. The bad news is, any further development, particularly for the Amiga, seems unlikely. The good news is the author has released a keyfile on Aminet which allows all Amiga users to use the registered version for free. It's

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Circle 124 on Reader Service card.

sad to see development on this excellent compression program cease, but at least we all get to take advantage of the registered version's extra functionality. The registered version supports unpacking LHA as well as LZX archives, and features better speed and compression. And hey, it's free!

The Ultimate Archiver V1.21R Registered

Author: jonathan.forbes@canrem.com

(Jonathan Forbes)

Type: util/arc/Lzx121r.lha

Generic Keyfile for LZX authorized by

Jonathan Forbes

Author: BEGOODMAN@HOTMAIL.COM

Type: util/arc/lzxkeyfile.lha

And now for something even more completely different:

## Animated Workbench backdrops

This is one of those cool little things that make owning an Amiga worthwhile. It isn't terribly practical, but it is quite fun to see, and to show off the Amiga. This program allows you to use an animation as the Amiga's Workbench backdrop. It does take a little bit of work

to make it happen, you have to map your animation to your WB palette to get it to look right, and save it as an animbrush. The author recommends Personal Paint (excellent program!) but you could also use Brilliance or DPaint. An animated backdrop also uses up a fair bit of processor power and chip ram, so you may not want to use it all the time, but isn't it nice to know you can now animate your Workbench, if you want to? See Figure 2. (I know, I can't show an animation on the printed page, but trust me, it looks cool!)

Animate your Workbench backdrop!

Author: Gareth Murfin

(gazy@globalnet.co.uk)

Type: util/boot/WbLogo.lha

As always, you can contact me via Amazing Computing/Amiga, or via email:

Dave Matthews

dm05438@navix.net

•AC•



# Windows 95 Goodies for Amigoids

An array of Windows 95 programs that help the Amiga fan when they must work with that alternative computer platform.

by Dave Matthews

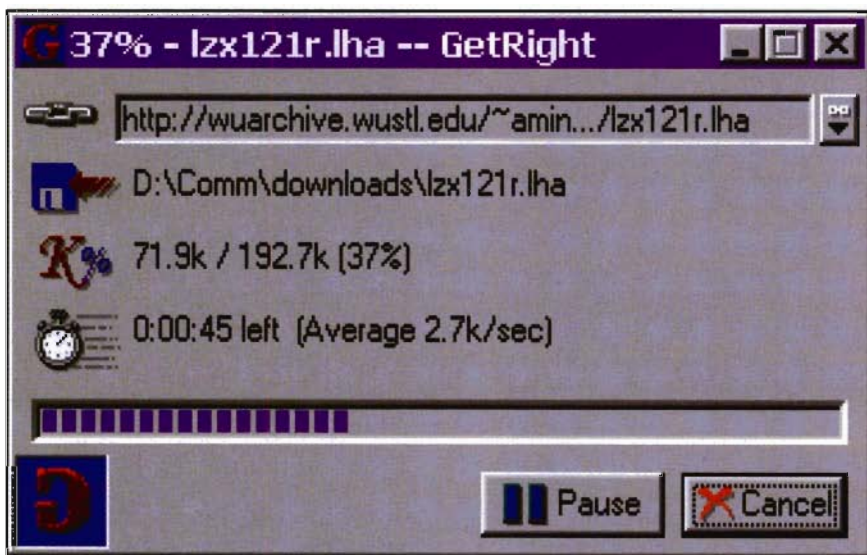


Figure 1: GetRight downloading from Aminet.

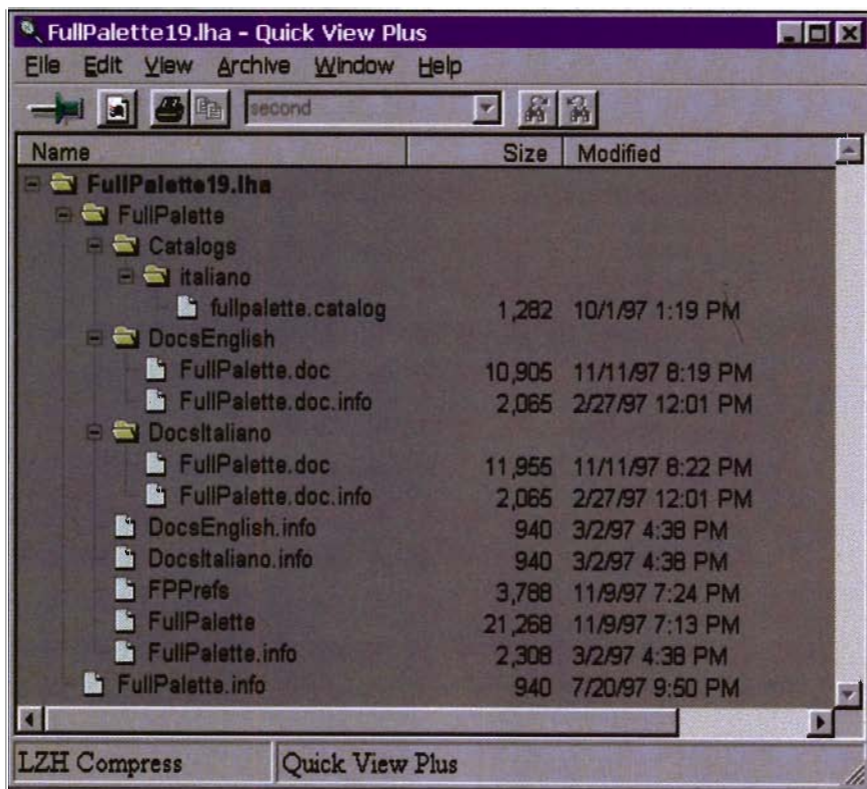


Figure 2: FullView supports LHA archives.

Well, much as I hate to admit, I spend almost as much time on the PC as I do on my Amiga. And often I need to handle various Amiga files while using the PC. For instance, I often download Amiga files from Aminet using Netscape, and many times I need to view or edit Amiga IFF pictures on the PC. I have found the following Windows 95 programs to be quite helpful when dealing with Amiga related files.

## GetRight v3.02

<http://www.headlightsw.com/>

Anyone who's ever downloaded a file from Aminet with Netscape can attest that it can be a royal pain. Netscape seems to have a thing about LHA files, which is the compression format most Amiga programs use. Some versions of Netscape tend to corrupt LHA files for some reason, and even the latest versions 4.0+, renames the .lha as .exe when saving. I fail to understand the logic of this, but I guess the programmers at Netscape thought it was a good idea.

GetRight, by Headlight software, is a terrific little utility that can hijack a download from any browser, and download it correctly, with no muss or fuss. Users of Netscape can tell GetRight to watch for mouse clicks on downloadable files, and take over the download automatically. Internet Explorer or other PC browsers can copy the link to the clipboard, and GetRight will then download it.

In addition to downloading LHA compressed files, GetRight has many other features, such as retrying a busy connection, resuming a broken download, scheduling downloads for later, and even logging off and/or shutting down after a successful download session. If you must use the PC to



retrieve Amiga files, you may find GetRight is just the ticket. An evaluation copy can be downloaded at headlight's web site. See Figure 1 for a screen shot of GetRight downloading a file.

### Fullview v4.5

<http://www5.eps.inso.com/>

INSO's Fullview is another handy program for Amiga owners who also use PCs. Fullview is a file viewer program, and supports over 200 different file formats. What makes this program of great use to readers of this article is the ability to view and unpack LHA archives. This is handy if you need to view or extract a file without moving the archive to the Amiga.

While there is a DOS based version of LHA, it doesn't support the Amiga's long filenames. Fullview not only supports long filenames, it has a nice GUI for dealing with archives. You can download a trial version from their web site. See Figure 2 for Fullview with an LHA archive opened. Unfortunately, although Fullview supports many picture types, it does not support IFF pictures.

### ACDSee v2.22

<http://www.acdsystems.com/>

Which leads us to ACDSee. Luckily, ACD Systems has a very nice picture viewer, which in addition to the standard formats like PNG, JPEG etc., also supports Amiga's IFF images, including IFF24, HAM, and HAM8. ACDSee features a thumbnail image browser, the ability to convert images to JPG, PCX and BMP, and is a fast, good quality image viewer. Again, a trial version is available at their web site. See Figure 3 for ACDSee.

### Paint Shop Pro v4.14

<http://www.jasc.com>

And, finally, if you need to edit or convert an IFF picture (or just about any other picture), take a look at Paint Shop Pro. This program is one of the best all around graphics tools you can buy for Windows, and it's under \$100! While not quite as full featured as Photoshop, it

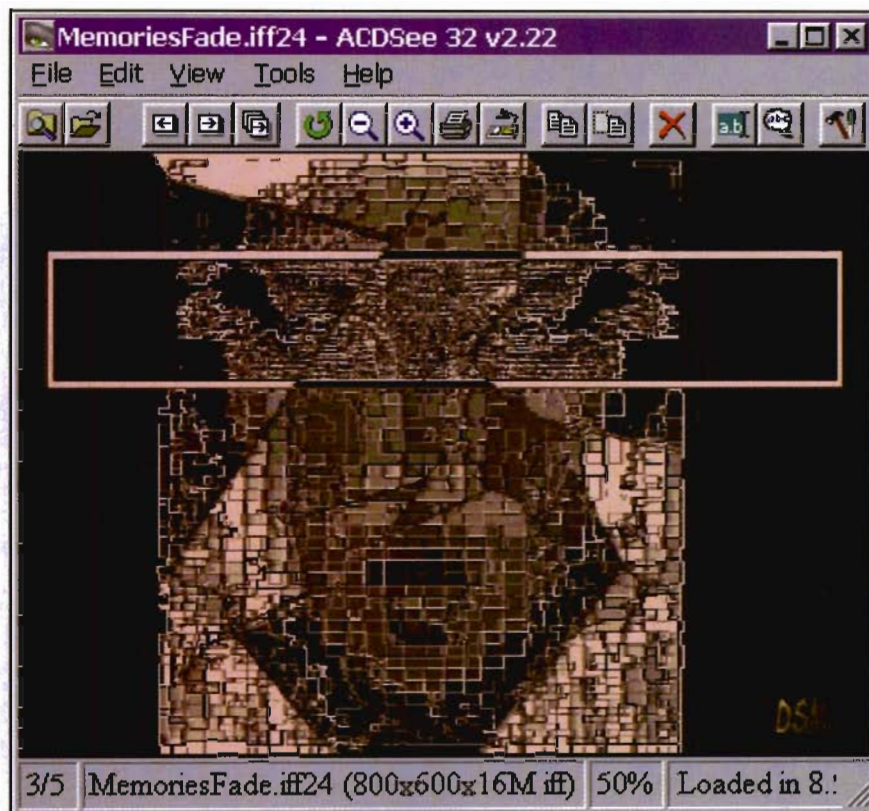


Figure 3: ACDSee showing IFF24 Picture.

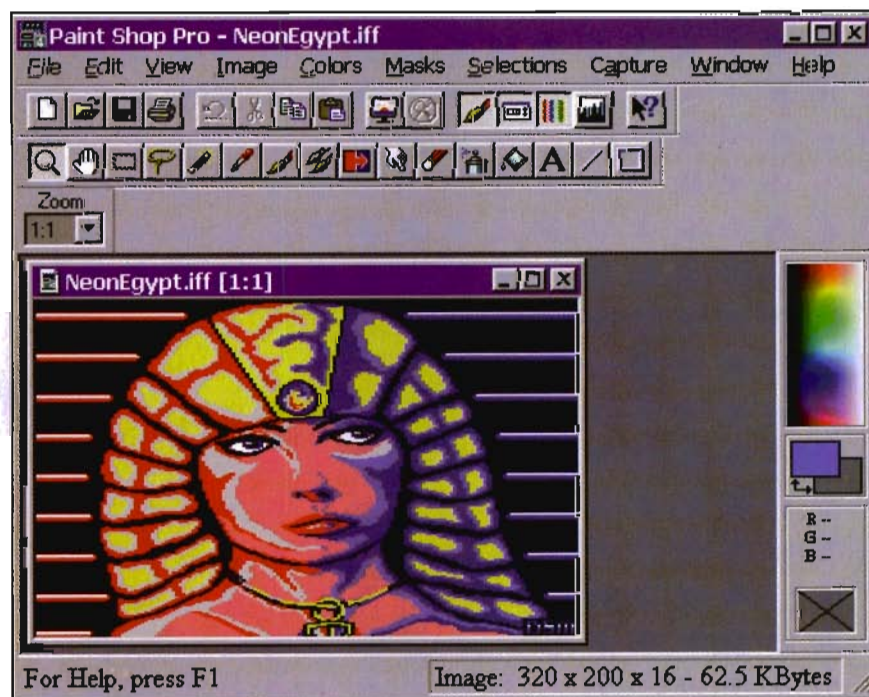


Figure 4: Paint Shop Pro supports IFF Pictures.

certainly does the bread and butter graphics operations, and supports many Photoshop plug-ins, and doesn't require a second mortgage to afford. The only bad news is lack of IFF24 or HAM

support, Paint Shop Pro will load standard IFF images up to 256 colors. Still, a very useful program. Check out their web site for a trial version. See Figure 4.

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# Reading PDF and PostScript Files Can the Amiga Become an Acrobat?

by Michael Tobin, M.D., Ph.D.

## The Setting

When I started my new position as Section Chief in Nuclear Medicine, I wanted to make sure that all our procedures were up to par. Nuclear Medicine is a branch of Radiology which uses small amounts of radioisotopes mainly to diagnose, but occasionally to treat, disease.

I called the Society of Nuclear Medicine and was told that a series of guidelines had been developed for the performance and interpretation of many different types of patient examinations. These protocols were developed in response to physicians' requests to have an agreed on "best way" of doing things according to the "experts."

The individual I contacted at the Society suggested that I visit their website (<http://www.snm.org/guide.html>) and download whichever protocols I needed. As soon as I saw the .pdf extension on the files, I knew I was in trouble.

## Adobe PDF (Portable Document Format)

Adobe PDF file format is one of several formats that allows a document containing text, tables, and images to be saved in a single file that can be read exactly as it was created by anyone with the appropriate software.

Creating the PDF file requires purchase of one of the Adobe software packages. The Adobe Acrobat Reader, on the other hand, is free. Unfortunately, the Amiga is not one of the computer platforms for which a Reader is available.

## What's an Amiga User to Do?

Although I could have tried to use one of the Macintosh or PC emulators, I felt that I wanted to give the Amiga a chance on its own. So I searched Aminet (<http://ftp.wustl.edu/aminetbin/find>) for a PDF reader. I came up with xPDF and Ghostscript programs. As it turned out, being able to read and print a PDF file took much more than a 2 minute installation and a quick glance at the documentation.

Eventually I was able to read, print, and save PDF files. My experience taught me much about PDF, PostScript, and Amiga programs in general. I would like to share that experience with you. PDF files are not uncommon and you may find yourself faced with the same problem.

## An Overview

Basically, I am going to describe two approaches to the problem. The first uses xPDF which can read PDF files but saves them as PostScript files. PostScript files can be printed on PostScript printers or be read, printed, and saved by shareware interpreters like Post or previously available commercial products, like SaxonScript.

The second approach uses Ghostscript, which alleges to be able to interpret PDF files directly. I'll tell you what you need to do to use each approach. I'll also tell you which approach I prefer and why. I will conclude with a little sermonizing about the little computer that can — the Amiga.

## xPDF

To use the xPDF approach, your first step would be to download xpdf2c.lha from Aminet (<http://www.usa.aminet.org/aminetbin/find/>) or one of its mirror websites. This X11 program, ported to the Amiga by Terje Pedersen, allows you to read Adobe Acrobat Portable Document Format (PDF) files. Before you can, however, there are a few things you must do.

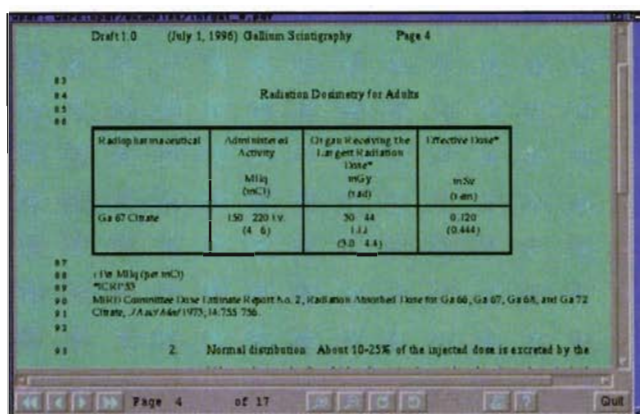


Figure 1: xPDF is a CLI program that makes reading PDF files a breeze. Despite the printer icon in the bottom control panel, PDF files are not printed by the program. Instead, they are only saved in PostScript format.

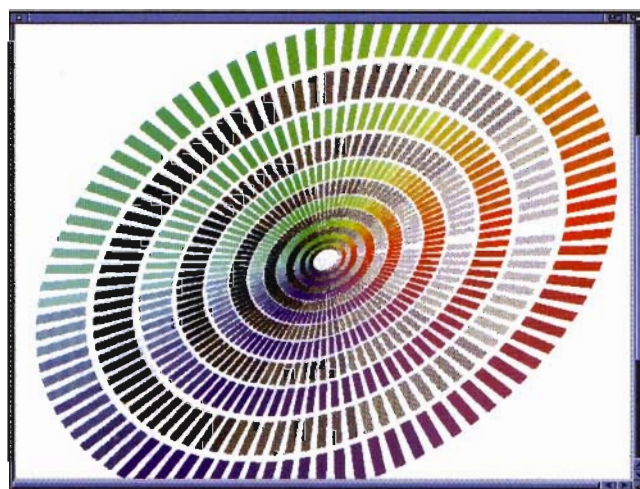


Figure 2: HWGPost provides you with a datatype so that datatype-aware programs, like multiview, can view PostScript and encapsulated PostScript (EPS) files directly, without the need for a special viewer.

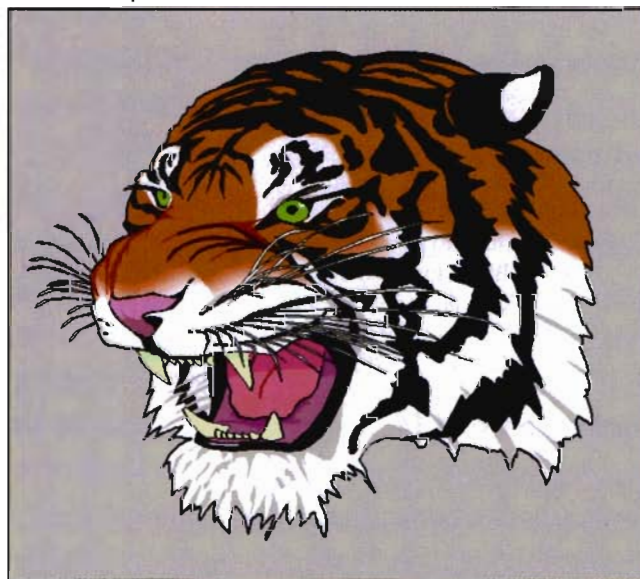


Figure 3: This is the famous (?infamous) PostScript tiger as interpreted by the SaxonScript Professional program. As my test image, it was viewed, saved, and printed countless times causing the tiger to become ferocious. I think that you will agree that SaxonScript does a nice job.



Because xPDF uses Terje's own x11 library, you must first assign the libx11 file that comes with the program. So, if you place the xPDF directory in your Work: partition, your assigns would look like:

```
assign libx11: Work:xPDF/libx11
path xPDF: Work:xPDF add
```

Actually, libx11 is a directory that contains two ASCII files. The first of these is AmigaDefaults, which looks like a preferences file, and rgb.txt, which assigns descriptive names, like CadetBlue and ForestGreen, to different RGB values.

You probably won't want to change rgb.txt, but have a look at AmigaDefaults. The meaning of the file is obvious once you see it. After you get used to xPDF, you may want, for example, to change some of the font assignments.

## How do you use xPDF?

xPDF is a CLI program. So, if you keep your PDF files in a directory called PDFfiles on the Work: partition of your hard drive, you would open up a shell and type:

```
stack 20000 (Unix programs love s p a c e)
xPDF Work:PDFfiles/file.pdf [return]
```

The results are shown in FIGURE 1. Here we see the PDF document displayed in a window with rather obvious controls on the bottom. Although one can scroll up and down the window, text updates are slow and change in a jerky fashion. The text is readable, but hardly elegant.

Printing out the document would be desirable, given the unpleasantness of reading the text on-screen. Although the printer icon at the bottom of the window would appear to offer this option, it does not. Rather, it converts the PDF file to a PostScript file and leaves the rest up to you.

Before moving on to the issue of what to do with PostScript files, you can use your favorite file utility to note that a PostScript file is approximately 5 times larger than the PDF file from which it came.

## You Do Have a PostScript Printer, Don't You?

Well, you are home free if you have a PostScript printer. If you do not, you will need a PostScript interpreter to translate the PostScript page description into a bitmap image your printer can understand. Hmm... Have we only exchanged one problem, printing a PDF file, for a new problem, printing a PostScript file?

Well, we do have options. We have the Aminet programs POST and its successors, a variety of Ghostscript versions, and vintage (and alas, no longer so readily available) commercial offerings like SaxonScript.

## An Overview of POST

All flavors of POST, and PostScript interpreter programs in general, have certain features in common. The first is the ASCII init.ps file which contains boring but necessary information about fonts, where to find them, the default font, and much more

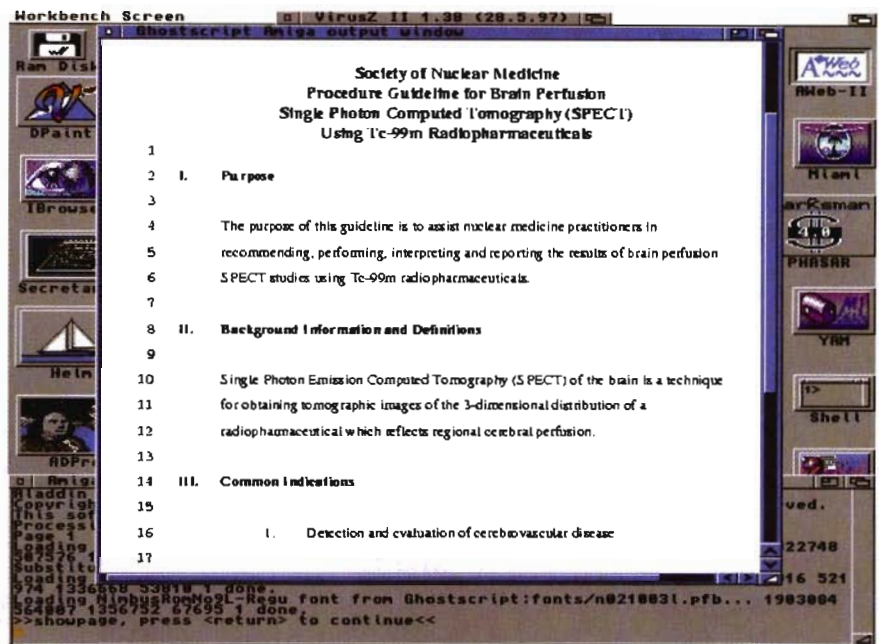


Figure 4: With Amiga GhostScript 4.03, you can easily read a PDF or PostScript file in a window on Workbench. Saving and printing are also straightforward. Life is easy once you remember to start your CLI with a stack of at least 65000.

that is only understandable to those conversant with the PostScript language. The aim, we read in the documentation, is to mimic a PostScript printer.

Next is a library, which for POST is the post.library. Typically, there is a plain vanilla version of the library for 68000 processors and another for those with 68020 acceleration. You put your choice in libs: directory.

Then, you need fonts. PostScript fonts, that is, and not the garden variety bitmap fonts that come with the Amiga. Your sources will be Adobe (tm) Type Manager and Plus Pack (Type 1 fonts) or what you find in the public domain (Type 3 fonts). Have no fear. Much of what you will need is on Aminet.

Finally, comes the POST program, which is either run from the CLI or from the Workbench via a GUI. Doc files, small PostScript related programs, and example PostScript files for you to play with, round out the typical POST archive. All POST programs like you to write an assign statement in your user-startup file for POST and for PSFonts, your PostScript font directory.

## POST, Enhanced POST, HWGPOST, and POSTV2

POST v1.7B (POST17B.lzh) is the grand daddy POST program, copyrighted in 1989 and 1992 by Adrian Aylward. It enabled the viewing, saving and printing of PostScript files.

An enhanced version, Post v1.86 (Post186enh\_bin.lha) included, among other changes, a new post "front-end" while keeping the post.library and the init.ps file the same. Importantly, it contained a collection of usable public domain fonts.

HWGPost (HWGPOSTbeta11.lha), according to the author, Heinz Wrobel, had,

as its major contribution, a significant rewrite of the post.library. He described his interface to the library as "A hacked up post 1.7 front end to try out HWGPOST" and recommended that the original Post viewer or PostView (PostView1.2.lha) be used instead. He also provided an incredibly useful PostScript datatype enabling all datatype-aware programs, e.g., multiview, to view PostScript and encapsulated PostScript files.

Post V2 (POSTV2.lha) is a new viewer by Christian Eibl, which utilizes the HWG post.library or one of the older post libraries. As such, it demands the installation and understanding of HWGPost or one of its predecessors. It can be run from workbench, the CLI, or via ARexx and is highly configurable.

The most up-to-date configuration of Post would then be the post.library and init.ps from HWGPost, the viewer from Post V2, and the fonts from Post V1.85enh (Post186enh\_bin.lha) and PSFonts (PSFonts.lha), unless you provide your own. This is the configuration I will now describe in more detail. The family of Post programs can be found on Aminet.

## What's in the Package?

The first step is to get HWGPost up and running. Fortunately, HWGPost comes with rather good documentation in AmigaGuide format. Read the "Contents" section first.

Init.ps, post.library, and the HWGPost viewer are files you already know to expect. In due course, you will be replacing the HWGPost viewer with the newer Post V2 front end, but that will be later.

MathSingFix is a program that you will put as the first entry in your user-startup file to patch the mathiesingbas.library. (New versions of setpatch from Amiga International may obviate the need).



**Society of Nuclear Medicine  
Procedure Guideline for Brain Perfusion  
Single Photon Computed Tomography (SPECT)  
Using Tc-99m Radiopharmaceuticals**

## **I. Purpose**

The purpose of this guideline is to assist nuclear medicine practitioners in recommending, performing, interpreting and reporting the results of brain perfusion SPECT studies using Tc-99m radiopharmaceuticals.

**Figure 5: The printed output from GhostScript interpreted PDF file is more than adequate for reading and storage.**

HWGPOSTResources is a file which lists available PostScript fonts. You will replace this list with your own once you set up HWGPOST. The (included) program that does this is called enumfonts.ps. HWGPOSTResources stays in your HWGPOST directory.

PATH\_FONT is the definition file for the font search path of HWGPOST. You will create a directory in ENVARC: (and ENV:) called, unsurprisingly, HWGPOST and put PATH\_FONT in it. PATH\_FONT required no modification from me.

PRTPS, which goes into your devs/ dosdrivers directory, and prtpost- handler, which goes into your I/ directory are what HWGPOST needs for printing.

As I have already mentioned, HWGPost gives you a PostScript datatype for viewing PostScript and encapsulated PostScript files so you must also expect some entries in your classes and devs directories.

Once you install this datatype, you will be amazed how useful it is (FIGURE 2). I have also found the HWGPost PostScript datatype to be more reliable than that provided by PostScriptDT.lha, which can also be found on Aminet.

## **What HWGPost Asks of You**

I have already mentioned that unless you have some other source of PostScript fonts, you need to go to Aminet and get them from PSFonts.lha and from Post186enh\_bin.lha and put them in a directory called PSFonts.

Next, you must assign POST and PSFonts appropriately. For me, the assigns looked like:

```
assign POST: Work:DTP/PostV2
assign PSFonts: WorkBench:PSFonts
path Work:DTP/PostV2 add
```

MathSingFix (unless new versions of setpatch make this unnecessary) belongs as the first line in your user-startup file while PATH\_FONT belongs in the HWGPOST directory you create in ENVARC: and ENV:

While we are on the subject of ENVARC:HWGPost, you need to create a DATATYPECONFIG file if you want to see

color rather than black and white with the HWG PostScript datatype. You place DATATYPECONFIG in ENVARC:HWGPost. The "Special Notes" section of HWGPost.guide tells you what to do. Because I accepted defaults for everything else, my DATATYPECONFIG file looks like

```
COLORS=3
BPC=8
```

where COLORS=3 means RGB and BPC=8 means 8 bits per color (256 total), which makes sense only for AGA graphics machines or those with graphics cards. Additional easy-to-follow installation instructions are included in the HWGPost documentation.

## **Using Post V2 Viewer with the HWG post.library**

Although it is tempting to want to use the HWGPost distribution as it is, I found that the HWG viewer had problems especially when it came to saving files and now have no need at this point for this admittedly unfinished product.

If you do wish to try HWGPost, there is a program called fixpost.lha, written by Cyborg@Trashcan.mcnnet.de, which "will correct the iff-header generated by post from HWGPost-archive." The format of the command is fixpost >tiger.new tiger.original Black and white graphics now seem all right but, due to HWGPost, color files still come out incorrect.

PostView, although recommended by Mr. Wrobel and friendlier to use than HWGPost, consistently crashed my A1200 when requested to save a file. Therefore, I would suggest that after setting up the various files, etc., that you replace HWGPost viewer with the Post V2 viewer and add the Post V2 envarc files to ENVARC: and ENV:

## **The Big Test**

I tested viewing, saving, and printing PostScript files using the Post V2 viewer/ HWGPost post.library combination. My test examples were the ubiquitous tiger.ps image file (FIGURE 3) and several multi-page Nuclear Medicine guidelines in PostScript

format derived from their PDF equivalents. These, you will recall, I obtained from the Society of Nuclear Medicine's web page.

Regardless of file content, the latest Post viewer/library combo is a pleasure to use. Unlike PDF files with xPDF, scrolling and reading PostScript files is smooth and pleasant even on AGA screens. For viewing text, I used an 800 x 876 productivity screen with 90 dpi. At 75 dpi, letters looked squashed.

Printing with Post V2 does require fiddling with dpi's, offsets, and pixel widths of pages, especially the first time. Actually, the HWGPost viewer seemed better in that it figured out the numbers for you. I didn't get too upset about this. PostScript files are saved as iff images and once saved, can be printed by any software you like. Saving PostScript files with Post V2 is effortless.

## **Post Downside?**

The only major problem I encountered really had nothing to do with Post or its libraries. I found that PostScript files that contain text, such as the Nuclear Medicine guidelines, would not print because of a problem with the Symbol font that came with Post186enh\_bin.lha. The author, Mr. Heinz Wrobel, e-mailed me a temporary fix for the problem which essentially was Symbol Encoding information that I inserted into the init.ps file that I currently use and which I store on my web site (<http://www.octet.com/~mikety/ftp.html>).

You can reach Mr. Wrobel by e-mail at [heinz@hwg.muc.de](mailto:heinz@hwg.muc.de) should you encounter a similar problem. At this point, you should probably recall that both HWGPost and Post V2 are giftware and deserving of your consideration.

## **Ghostscript**

### **An Introduction To The Ghostly World**

A totally different approach to reading PostScript files is Ghostscript. Perhaps I should use the plural Ghostscripts because there have been several versions of the Unix program Ghostscript that have been made to run on an Amiga. The copyright to Ghostscript is held by Aladdin Enterprises. Many enthusiasts have been involved in bringing Ghostscript to the Amiga including Olaf Barthel, Steffen Opel, L. Peter Deutsch, Markus Landgraf, Andreas Heitmann, Joop van de Wege, and probably others to whom I must apologize for failing to identify.

The most recent Ghostscripts claim not only to be able to handle PostScript but also PDF files. The ability to read, store, and print PDF files seamlessly without an intermediate conversion step is desirable. Combine this with the main executable being optimized for your specific Amiga processor and you have a program with a great deal of promise.

Ghostscript is constantly being updated. As I was finishing this article, a new version of Amiga Ghostscript, 5.01, appeared on Aminet. So don't be surprised if there is an even newer version of Ghostscript by the time you read this article. The changes, which you can read about in Ghostscript's doc/current.txt file, tend to be



internal to the program, enhancing its capabilities, while the Amiga options tend to stay, more or less, the same.

There is an additional point to be made before getting down to the nitty-gritty of Ghostscript. Unix derived software tends to be case sensitive, and Ghostscript is no exception. AMIGA is not the same as amiga.

### Ghostscript-How she is installed

Installing Amiga Ghostscript is straight forward. The Ghostscript distribution comes with fonts, documentation, a series of small programs, including a crucial init file, example PostScript files, and a main executable file which you choose according to the Motorola processor you have.

You then modify your user-startup to assign Ghostscript: For example,  
assign Ghostscript: Work:Ghostscript  
path Ghostscript: add

Ghostscript will then search for its fonts in Ghostscript/fonts and its various files, including `gs_init.ps`, in Ghostscript/data.

### Ghostscript

#### —How she is supposed to work

Using Amiga Ghostscript should also be straight forward. The general format is  
`gs -sDEVICE myfile.ps`  
`-sDEVICE` is the initial output device.

For viewing, your choices might include `amiga_high`, `amiga_low`, `amiga_custom` (brings up a requester allowing you to choose your screen), `amiga_picassoii`, `retina16`, etc. depending on the Amiga implementation of Ghostscript. For Amiga Ghostscript 5.01, the choices are `amiga`, for viewing your PDF or PostScript file in a window on workbench and `amiga_custom`, for viewing on a custom screen with a screentype of your choosing.

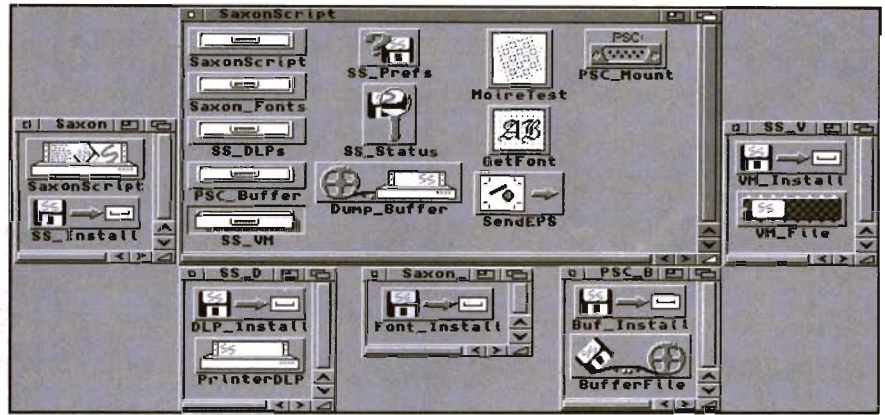
Saving and printing work similarly, except that for saving, you need to specify a location and a name for the output file. To see how this would work in practice, if one had a PostScript file, `tiger.ps`, one should be able to View it with `gs -sDEVICE=amiga_custom tiger.ps`. Save it with `gs -sDEVICE=amiga_ilbm -sOutputFile=ram:pic.iff tiger.ps`, and Print it with `gs -sDEVICE=amiga_printer tiger.ps`

Using Ghostscript 5.01, I was able to view my favorite tiger with stack 65000

```
cd gs;
gs -sDEVICE=amiga_custom
gs>(examples/tiger.ps) run
>>showpage, press <return> to
continue<< [Ghostscript generated]
gs>quit
```

The first line is crucial — Amiga Ghostscript 5.01 will crash without an error message if the stack size is too small.

You can find Amiga Ghostscript(s) on Aminet. Your best source of Amiga specific information, short of asking questions in Amiga newsgroups on the Internet, may come from the descriptive information you find next to the files themselves. So, don't forget to download the descriptive files.



**Figure 6: The SaxonScript disk is filled with goodies. The various components are easy to install. The outstanding documentation and quality of visual and graphic output should set a standard for programs of its type.**

Once you are inside the Ghostscript distribution, you can get more information from the `use.doc` file. The `new-user.txt` is also useful. Both of these are in the `doc` directory.

### The Reality of Amiga Ghostscript(s)

Initially, I had tons of trouble with Ghostscript. Crashes without error messages were the norm. Finally, I posted a message to the `comp.sys.amiga.misc` newsgroup asking for people's experience with Ghostscript. Tony Philipsson responded in detail, suggesting a stack size of 65000 when running Ghostscript. Jeroen T. Vermeulen suggested using even a larger stack size, e.g. 100000, if the crashes continue.

Now that I use a large stack size (65000 has seemed sufficient), I have been able to view, save, and print PDF as well as PostScript files. Multi-page files are no problem. You can easily view them in a window on Workbench (FIGURE 4).

Printouts of the `tiger` PostScript file on my Canon BJ-200e black and white printer were fine. Occasionally, when printing text, I would get a vertical line in the last column on the right for the initial few rows. Interestingly, in the documentation for Amiga Ghostscript 5.01 on Aminet, Joop van de Wege mentioned a bug in the `amiga_printer` option, but I do not know if my artefact is a manifestation of it.

Even with this artefact, print quality of PDF and PostScript text files was more than adequate for reading. You can, however, improve the appearance by using the `"r"` switch in the initial command line when calling the Ghostscript program. (FIGURE 5). For my Canon printer, which is configured for epon emulation, I use

```
gs -r110x200 -sDEVICE=amiga_printer
```

### Ghostscript and You

Once you know about the stack size requirement, I think that you will find Ghostscript quite serviceable. Color PostScript files, such as `tiger.ps`, get saved as grey scale images when using `-sDEVICE=amiga_ilbm`. However, you can get around this by saving the image as a 256

color BMP file as in:

```
gs -sDEVICE=bmp256 -
sOutputFile=ram:tiger.iff tiger.ps
```

When displaying PostScript files, Tony Philipsson had some further advice which I thought I would pass on. In reference to Ghostscript 4.03 he said, "Do not move the window sliders until the page is fully drawn. The program is buggy and will lock-up." The Angle on SaxonScript

SaxonScript Professional is a commercial PostScript interpreter which, unfortunately, is no longer available. It was copyrighted by Emerald Graphics Corporation, Canada, in 1992.

I tested SaxonScript on my Amiga 1200, with Amiga OS 3.0, 18 MB of RAM, a 775 MB IDE hard drive, a 68030 DKB accelerator with a SCSI connector, and numerous SCSI devices chained together. Such a system was unheard of when SaxonScript was developed. And yet, this program, which was designed to run on Workbench 1.3, two floppy drives and 1 MB of RAM worked exceptionally well.

### Installing and Using SaxonScript

Installing the SaxonScript program seems strange now in that it does not come with an Amiga installer utility. Rather, one creates a directory, drags drawers into it, and installs the various parts of the program by opening the drawers and double clicking the install button there. There is an advantage to this. Because the different drawers can be scattered according to hard drive space, SaxonScript is totally modular. (FIGURE 6)

Basically, SaxonScript gives you a `psc:` device to which you can send PostScript files for (pre)viewing and printing. The print quality is excellent! SaxonScript does even more. For example, it can save PostScript files in IFF-ILBM, EPS, AEPS, or DR2D formats. As a nice touch, the program allows you to crop an image before saving it.

SaxonScript also contains several utilities. With `GetFont`, you can convert Macintosh and PC Type 1 fonts into Amiga Type 1 format. You can also use `GetFont` to convert PostScript Type 3 fonts into Type 1 fonts. This one utility is probably worth the price of the entire software package.



## How About those Docs?

Because you will want to optimize program settings to take advantage of the extra RAM that many of us now have, it is important that the documentation be adequate. SaxonScript's documentation is more than just adequate. It is fantastic.

SaxonScript not only describes all aspects of the program with clarity, but also includes within its 78 page manual a readable history of printing from Johannes Gutenberg to the advent of compressed binary PostScript!

## What's the Downside?

You will find that, because of SaxonScript's age, some of the discussions, especially about printers, is out of date. Also, SaxonScript only supports PostScript level 1 commands. I couldn't see or use the controls at the bottom of the preview or cropping screen until I booted my Amiga in PAL mode. You may find a better way. Hmm...So What Should I Use?

If you have PostScript files AND you basically want to have excellent printed copies, try to get hold of SaxonScript. The GetFont utility alone is worth the effort.

For viewing PostScript images, you can take advantage of HWGPost's PostScript datatype with multiview or similar programs. For multi-page PostScript documents, Post V2 with the HWG post.library will allow you to view, print and save.

Once you know about the stack size requirement and if you don't mind using the CLI, I think you will find the latest versions of Ghostscript very acceptable. If you have PDF files, Amiga GhostScript does a very nice job of displaying and printing without needing first to convert to PostScript. If your files are already in PostScript, Amiga GhostScript will still work nicely.

Both Ghostscript and Post seem to have rather frequent additions and upgrades. But a new version does not necessarily mean a better version. It is possible, for example, for a bug to be introduced inadvertently or for a feature you liked to be omitted. So don't throw away the old versions until you can test the new ones. On the other hand, if you are just starting out and having problems with the latest version, don't hesitate to try an earlier version. These same recommendations could apply to any program, not just the ones discussed in this article.

## Related Issues

Although I haven't covered the topic of dealing with non-Amiga wordprocessor formats, it does seem relevant. The usual scenario revolves around the need to transfer written documents between an Amiga friendly home and a hostile PC world. The key is to save your documents at work in RTF (Rich Text Format) and have an Amiga program, such as Final Writer (Softwood, Inc.), import the text. Make whatever changes you want and then save back in RTF.

One last way of importing text into the Amiga is to use a flatbed scanner to scan a printed page into it. The printed page will be an IFF graphic file. The fact that the "picture"

is made up of letters is initially irrelevant. However, a program called OCR by Migraph, Inc., can, via optical character recognition, translate the graphic file into ASCII text. The program works flawlessly under OS3.0 and 3.1. Unfortunately, like SaxonScript, OCR is no longer commercially available.

## Did I Leave Anything Out?

You bet! Like what? Like lots. Did you know that Provector 3.0 (Stylus, Inc.) allows you to import PostScript files via its PSImport module? Do you remember the PostScript interpreter program called PixelScript by Pixelations?

You can never really finish talking about PostScript, or its larger topic, desktop publishing. The best one can hope for is to find a convenient stopping point. What About a Wish List?

Of course I have a wish list. Some of the wishes are probably in the realm of fantasy, like Emerald Graphics coming back and working on a new version of SaxonScript. Others, like an existing Amiga developer taking over the rights to SaxonScript and bringing it up to date, may be more realistic. Naturally, I would want the next version of SaxonScript to be able to handle the latest PDF and PostScript formats, fit the preview screens better, and update and expand the excellent documentation. Perhaps Saxon Publisher could also be revived or some features incorporated in a new program.

For Post, I would hope that the HWG post.library would be developed further and also be able to handle PDF files. I would like the Post V2 front end bundled with the HWG post.library and an Amiga Installer handle all the installation details. I'd also like to see a problem-free set of PostScript fonts included in the Post archive so that no special "fix" would be needed, as for the Symbol font.

For Ghostscript, I would like more user transparency and friendliness. I'd like to see an easy to use Amiga interface. I'd want error messages instead of crashes. I'd like some decent Amiga oriented documentation.

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## So What to Make of All This?

Clearly, I am now able to use the Amiga to read and print the Nuclear Medicine documentation I need even though it is in PDF format. Having taken the time to figure everything out, the process is now smooth and effortless. And now that I have shared my experiences with you, hopefully you will be able to avoid some of the blind paths I initially stumbled along.

## And the Amiga?

Through all its difficult times, the Amiga has remained an extremely powerful, user-friendly computer platform. But the Amiga needs more than the best operating system. It also needs applications.

Post and Ghostscript clearly show what, over a period of time, dedicated Amiga shareware authors can produce. But, almost every author writes about the time constraints he is facing and how much he would like to do if he had the opportunity.

I don't see a conflict between shareware and commercial. The Amiga needs both. But I think that it is only through financially successful ventures that Amiga authors can earn enough to devote themselves full time to the development of new programs.

We, the Amiga users, can support software development by purchasing Amiga products. If developers can stay in business, then we can maintain our investment in Amiga platform.

## Postscript(!)

I would like to thank Mr. Ed Lake of the Amiga Users Group of New York (Amuse) for helpful discussions regarding the PostScript language and for verifying the readability of several PostScript files when my initial attempts with Amiga programs suggested otherwise. I also thank him for recommending the small, but information-packed, Pocket Pal: A Graphic Arts Production Handbook by International Paper. Now in its 16th edition, it is an excellent source of information about almost anything having to do with printing.

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## You can create pretty neat particle effects in your Amiga 2D painting software.

One of the continuing amazements is that Amiga software, even that which hasn't been upgraded for years, continues to provide users with creative alternatives. Here's another way that your DPaint or Brilliance painting packages can provide ongoing creative uses.

### Particle Systems

When we think of particle systems, it's natural to think of 3D environments as their natural home. A particle system allows you to spray conglomerate clouds of particles that can emulate real world artifacts like fiery sparks, water sprays, and other effects.

This usually involves very complex tools, and a necessary learning curve. Even a 3D particle system like that found in Aladdin 4D (one of the best all-encompassing particle systems around) requires devoted practice to learn and master.

You can, however, create pretty neat particle effects in your Amiga 2D painting software that will suffice for a good many projects that need particle effects. This method is not meant to supplant the particle effects contained in other Amiga software, but it can suffice to meet your needs in certain situations.

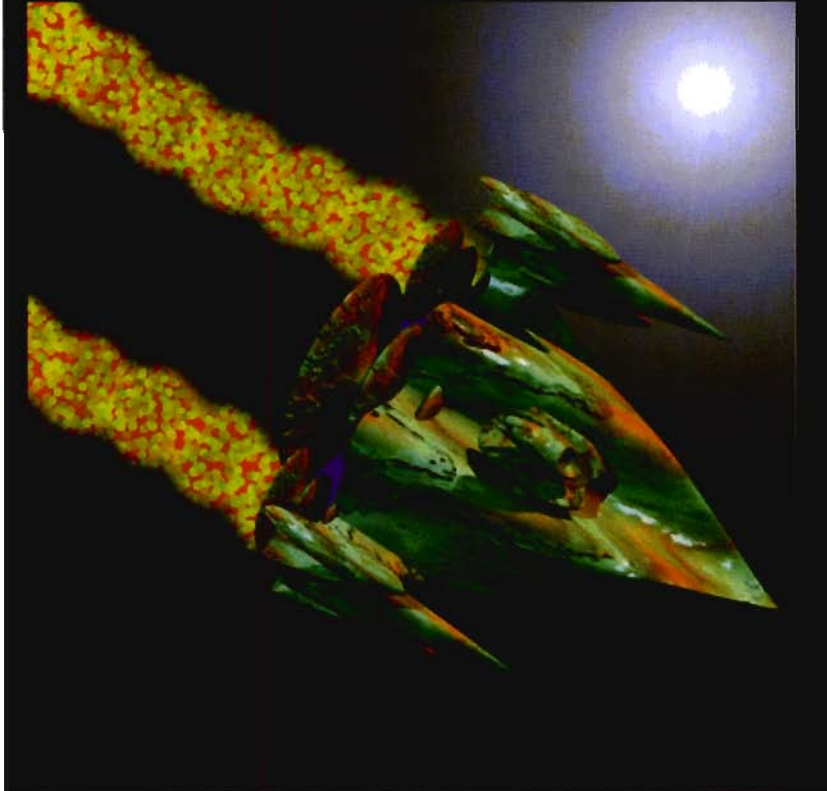
### What you will need

You'll need to have a familiarity with either DPaint or Brilliance to follow along with this tutorial. Either one will do, though I prefer Brilliance, since it has a faster 256 color mode emulation.

You can also use this method in a real 24-bit painting environment like OpalVision or TVPaint, but then you will need a single frame recorder to render the animation, or the DCTV unit from Play, Inc. It's also true that 256 color animations tax the speed of your system more than a lower number of colors.

If you are working under limited RAM constraints, you might want to try using a lower number of colors in your palette. Users working on non-AGA Amigas will be confined to hi-res palettes of 16 colors.

You will need to be specifically aware of how to work with ANIMBrushes in whichever software you select. No other platform, outside of the Amiga, allows you ANIMBrush features, no matter what the platform. It was attempted



## Creating a 2D Particle System

*by R. Shamms Mortier*



by a piece of software for Windows, but the results were, in a word, silly. If you use your Amiga as a video connected tool, you must have learned by now that the power of 2D ANIMBrushes is one of its greatest assets.

You should also have a knowledge of using cycled colors with the Airbrush tool, and an understanding of how to create a "frisket" or area of the screen that is protected and cannot be painted on. This is called "Stenciling" in DPaint and Brilliance. All of this information can be found in the documentation that comes with your Amiga 2D software.

Prepare a series of still frames in advance of a spaceship revolving on its X axis. This can be done by going into your favorite Amiga 3D program, and designing an appropriate craft. You can also use a model that may be in the library of your 3D application, like the spaceships already resident in the LightWave object library, or the Shuttle object that comes with Aladdin 4D 5.0.

You will need enough frames to make the model spin and return to its

in the range (you are allowed multiple ranges). I would suggest a range from yellow to orange, or from light blue to white. You can explore other color ranges for optional effects once you get the hang of the process.

Next, decide how many frames your animation is to have. This number should be a multiple of the number of frames in your spacecraft ANIMBrush. For instance, if the ANIMBrush has twelve frames, then the animation should have 12, 24, 36 etc., frames. You don't have to do this, but it helps you keep track of where you're at as far as the spin of the spacecraft. All of your animation frames should have the same color backdrop for this initial exploration. Later on, you can explore the possibility of adding a planetary object to each of the frames, even one that might be an ANIMBrush in itself.

After you have the frames configured on the screen, it's time to add the spacecraft ANIMBrush. Open it up from the place it was stored, so it is attached to the mouse as you move it. Each time you

## The eye is made to believe that since the craft is a 3D apparition, its whole environment must exist in 3D as well.

original position. About 12 to 15 should do. Save these shots out as single frames (256 color is best, though Brilliance also accepts 24-bit images, as does DPaint). Make sure that the backdrop for these renderings is solid black (RGB = 0, 0, 0).

When you have the images you need, call them up on separate screens in your 2D paintware, and create an ANIMBrush that takes all of them into consideration. Make sure that the ANIMBrush has no background, this is usually accomplished by creating the ANIMBrush with the right mouse button held down. The finished ANIMBrush should show the spacecraft revolving on its axis as you paint it down. Save the spacecraft ANIMBrush as a separate file to a selected directory on your hard drive.

Now for your 2D particle spray. Create a range of colors that you can use as a color cycling range. In Brilliance, this is done by Gradient Tool, and by selecting which colors are to be included


click the left mouse button with the ANIMBrush attached, you will paint down that frame of the ANIMBrush, and it will move to the next frame.

The idea is to use this method to paint one frame of the ANIMBrush on each successive frame of the animation. In Brilliance and DPaint, you can automate this process by using the "2" key in conjunction with the mouse, but I recommend more manual control. With a non-automated approach, you can more easily determine the position of each ANIMBrush application, so you can make the ship fly from and to anywhere you want it to.

After the ship is painted down on each frame of the animation, you will want to use the Stenciling controls in your paint package to protect everything but the background from being painted. That means protecting your spacecraft from being painted over. Do this according to the ways your documentation recommends, which is different for

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every Amiga painting package. Once this is activated, it's time to apply the 2D particles.

Make sure color cycling is turned on, so the spray contains the color range in the palette that you previously configured. Apply the particles as if they are being sprayed from the engines of the craft. Vary the spray for each frame. You may have to UNDO and REDO some of the sprayed particles as you go, especially after previewing the results every once in a while by running the animation. The finished result should be impressive enough to record to video, or perhaps to share with your Amiga compatriots on a disk.

### Conclusion

The amazing thing about this process is that it has a 3D look. This is because the spacecraft is a 3D object, or at least the representation of one. The eye is made to believe that since the craft is a 3D apparition, its whole environment must exist in 3D as well. This example should motivate you to try other uses as well, perhaps a spray of foam at the base of an animated waterfall, or a swarm of bugs choreographed over a summer twilight scene.

Enjoy! See you in Amiga ROMulan space.

Please Write to:  
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•AC•



(continued from page 48)

system). "Unlike most 'jumping' games there was an element of randomness, unpredictability, and gravity in the joystick control. The player could never be quite sure of hitting the target."

As for going against the grain, in the first segment of *Necromancer's* triptych "a gamer who tries to counter the opposition by becoming increasingly stronger will lose badly," Brudzynski continued. "The correct strategy in this section of the game is to maintain and gradually diminish the *Necromancer's* strength so as to finally expire at precisely the 'right moment'."

As for love ... well, both *Salmon Run* and *Alley Cat*, upon completion, were sealed with a kiss.

Williams has indicated (in the 1988 Japanese-language electronic games history *Denshi Yuugi Taizen*) that he worked particularly hard on *Alley Cat*. (Interestingly, it's the only Williams game that isn't an original design; he built upon a Donkey Kong-like concept that had been under development at Synapse.)

But he didn't get kissed back: the 8-bit game industry was in decline, the Atari version of *Alley Cat* sold poorly and the IBM conversion took six to eight months and earned Williams \$600. The author found himself having "a million of those moments at which you wake up at 3 AM and say, 'What the hell are you doing? Go get a \*real\* job'".

Williams would nevertheless contribute one more game to Synapse: *Balloon Float*, which was included with *Relax* — an ill-fated stress-reduction hardware/software combo published for a range of 8-bit systems in 1984. Naturally, as a Bill Williams game, it was unconventional. It could be played only using *Relax's* biofeedback headband, and the object, Williams said, "was to be cool at the moment when the game was encouraging you to get excited."

*Relax* may have wound up causing more anxiety than it relieved. It bombed, and a wounded Synapse — after a 1985 attempt to reinvent itself around its BTZ (Better Than Zork) parser as an adventure game publisher — was bought out by Broderbund.

By then, Williams had long since discovered the Amiga. Synapse's Wolosenko had managed to wrangle a "black box" prototype unit for him in 1984.

"It was such a wild experience," Williams said. "The first part of the experience was 'Oh, my God, what have I got myself into?' The development system for the black box was on a minicomputer that they sent me that had an operating system that was very similar to [UNIX], and I'd never seen anything at all like that. I was completely self-educated. It took me like a week to really even begin to get the thing to start to operate. Once I got over that hurdle, the Amiga itself was actually very easy."

Williams was struck immediately by the richness of its colors and the odd intuitiveness of its operation. ("It was a thing where you didn't study; you soaked.") "And when I started to work with the sound chip, I was in 7th heaven," he said. "I thought, 'You might actually be able to do something that won't annoy people.'"

### Playing Those Mind Games or Leggo My Ego

*Mind Walker* (Commodore, 1986): The perfect trippy game for the perfect trippy computer.

Amiga (Commodore hadn't yet entered the picture) was hungry for software to feed its creation, and this led to an unstructured development deal. "Amiga basically agreed to let Synapse provide them a game from Bill Williams," Williams said. "It was the best contract in the world. No specifications whatsoever. Complete creative freedom."

*Mind Walker* has roots in Williams' abiding interest in fractals and random-number algorithms — particularly one devised by Richard Voss that had an "organic feel" to it. Using that equation as a starting point, Williams devised his own which used a single 32-bit seed number to create the dreamlike tiered world of *Mind Walker's* opening level. "Friends would come over and walk around inside the world and basically do cloud-watching," Williams said. "Oh, that one looks like ..."

Williams converted his landscape engine from the Atari 800 to the Amiga — not an especially onerous task, given that the chipsets for both machines were created by Jay Miner. "It was like picking up a conversation with someone who had been thinking for a couple of years and had figured out a lot more stuff," Williams said. And *Mind Walker* took shape — slowly.

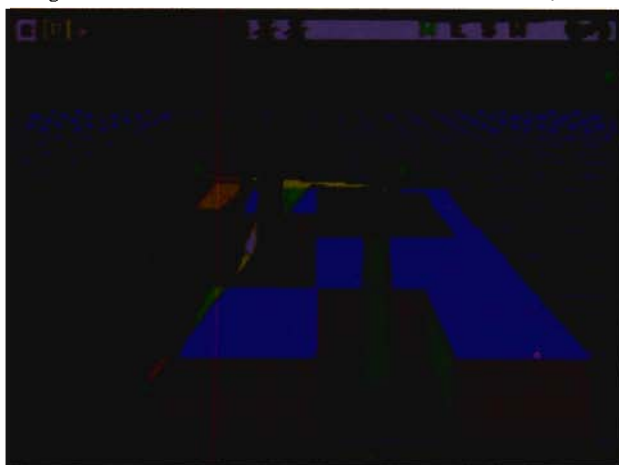
"I designed a lot of games with no connecting concept," he said. "I basically was just having fun with the Amiga. When it was 75 percent done, Ihor was starting to get a little worried because I had yet to explain what it was that the game was about and what you were trying to accomplish. I knew it would come."

*Mind Walker* casts you as a physics professor who has lost his mind. To get it back, you must use the four components of your ego — Human strong man, brainy Wizard, fantastic Spriggan and lithe Water Nymph — to trace a Path of Coherent Thought across the multi-leveled, multidirectional landscape of your broken mind.

Complicating this third-person task are some basic restrictions. The path can stray only so far from your starting point. Each of these sub-egos can only trace the path across certain types of terrain, so you'll have to occasionally find one of the floating pyramids that allow you to shift their shape.

And, naturally, your mind isn't a blank; as you approach your goal, you'll find it increasingly awash in Bad Thoughts which target you with advancing cones of lights. To clear them out, you'll need to tickle them with the end of your fractal ray. Once the path is complete, you negotiate pseudo-3D tunnels and 2D mazes leading to the Shards of Sanity, and finally transport the shards to the Subconscious and reassemble them in an inkblot puzzle.

Graphically, you shouldn't expect much. Despite occasional use of HAM mode, *Mind Walker*, like many first-generation Amiga games, has an 8-bit look, with simple figures and animations and basic backdrops. In part, this derives from Williams' use of Atari 800-inspired utilities. But the gameplay remains as pleasantly fresh as the concept is spacey, and it's



*Mind Walker* was not the first game on the Amiga—it was so extraordinary that it just seemed like it.



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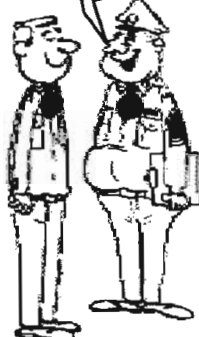
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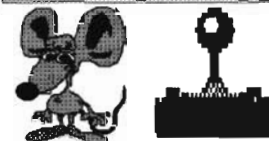
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difficult not to take pleasure in details like the damnably elusive doorways lining the tubes or the marvelously electric crackle that accompanies use of the fractal ray. And all in about 400K.

Designed for the original A1000's virginal Kickstart 1.1 and 256K RAM, Mind Walker was coded with Williams' trademark rigorous adherence to Amiga OS rules, and, consequently, runs properly even under Kickstart 3.1 and with an 060 processor — as do all Williams' games (with the odd skip-startup-sequence tweak).

Over the years, Mind Walker has acquired a beard of myths that have gained credence through repetition. Like most myths, they contain a grain of truth. But only a small grain.

counter-idea, I was going to have to do one of his."

It was a timely move for Cinemaware as well. Its earliest games — S.D.I. on the Atari ST and Defender of the Crown on the Amiga — offered heady production values but weak playability. "It shouldn't be seen as a reflection on the programmers," Williams said. "They were under a lot of pressure."

## Sinbad

Cinemaware may have needed a product in the marketplace, but it also needed a game of substance to establish its reputation. Sinbad was that, and more. It did so many things so well that the thin story underneath — vanquish the bad guy, save the king, get the good girl (and make it

his relationship with Cinemaware during Sinbad's production was uneven.

If Sinbad had a non-subjective weakness, it was that a fairly simple strategy — peak out your strength, exercise your "special purpose" with Libitina and confront her son — made victory significantly more likely. Once discovered, this dart penetrated Sinbad's veil and suddenly made the game seem more like a trick to be mastered rather than an adventure to be experienced. But, oh, what a splendid trick.

Williams once wrote that he wanted to write Amiga games that couldn't be converted to any other platform. While "couldn't" is a tricky word — any advanced game can be dramatically cut down to run under a reduced spec — the author for the most part delivered on this goal. Only Sinbad was converted to other platforms — specifically, the C64 and IBM.

I've never seen the C64 version, though I've heard it's actually quite good. But the IBM version, which followed the Amiga original by about a year, is genuinely wretched — wholly lacking in the essential beauty and the many amenities of the Amiga original.

Seeing it now, it serves both as a reminder of the Amiga's outrageous technical superiority at the time ... and, by extension, a potential explanation for CBM's turtle-like speed in developing a proper follow-up to the A500. In the heady days of mid-1987, there was simply nothing remotely like an Amiga.

In this period, Williams also did some preliminary work on an untitled game loosely based around people living in glass houses. He created an editor with which you could place glass panels, and managed to get a transparency effect working. Ultimately, however, "it just wasn't good enough," and was abandoned.

Williams also turned out his only non-game product in 1987. Ihor Wolosenko's brother, Jerry — later of Psygnosis — asked him to write software for a batch of discontinued Atari 1020 plotters he was planning to sell, but not to go overboard because he couldn't pay much. Williams was notorious for delivering more than was bargained for. He obliged, and turned in a project that, he said with just a touch of pride, was "state of the art."

Please see the next issue of *Amazing Computing/Amiga* for the conclusion of this tribute to Bill Williams.

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## Williams once wrote that he wanted to write Amiga games that couldn't be converted to any other platform.

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Mind Walker was not the first commercial Amiga game. Although among the earliest Amiga games — and probably the best distributed of them (owing to CBM's participation) — Mind Walker wasn't actually released until early 1986, when the Amiga had already been available for some months. The earliest commercial Amiga games I've been able to find are *Monkey Business* and *Delta Patrol* — both from The Other Valley Software and released in late 1985.

Mind Walker was not the only Amiga game Commodore ever released. It is the only one on floppy disk. Commodore also released a slew of games for CDTV in 1991-92 as CDTV Publishing and a handful for the CD32 in 1994 under the auspices of Commodore Electronic Publishing.

## Who's the Most Remarkable Extraordinary Fellow?

Sinbad and the Throne of the Falcon (Cinemaware, 1987): When Synapse was folding its last legs, a director named Brian Lee introduced Williams to Bob Jacobs of Master Designer Software (what would later become Cinemaware). Jacobs offered Williams "a good bit of cash and lots of creative freedom" and a theme — games that recalled movies — and Williams provided the Sinbad concept.

"I was a big fan of the stop-frame animation [of the Ray Harryhausen movies] and all of that," Williams said. "Bob is a generation older, and he would be recommending movies that were more the stuff that really jazzed him when he was 12 or so. I knew if I didn't come up with a

with the bad girl while you're at it) — never seemed thin. Even 10 years later, it has a death scene which still has to be seen to be believed; a gorgeous flowing water effect; a map lens that provides a genuine sense of looking down into a world; and a raised-small-hairs sensuality.

The music is simply incredible — along with the themes in *Faery Tale Adventure* some the best ever to grace a computer game. It harnessed Williams' natural gifts to popular content to produce his most accessible game.

As Sinbad, you conduct the hero and his party around Daramon and its huge environs; meet and greet a range of key characters (who appear in different locations each game); maintain a crew (a gorgeous and goofy shipwreck game here); fight assorted beasts and baddies in simple sideview; defend the capital city against enemies in a basic war game; and build strength for a final confrontation.

Williams allows that Sinbad has a lot of gameplay, and that it's a high point in his career. "I was starting to reach the peak of my programming abilities," stated Williams. "I think one of the reasons Sinbad feels like a good game is that it was created in a good environment where the designer was having a good time. You can pick up on that stuff."

And yet, reading between the lines, it's easy to see Williams isn't all that high on this game. Partly, it's because he's heard a lot of criticism of the graphics (which, depending on your point of view, are either a bit on the primitive side, or gorgeous folk art). And in part, it's because the tenor of

Copyright Peter Olafson 1997. The Bill Williams photo on page 48 originally appeared in Issue #9 of *Crossing the Rubicon* and is used with permission. Thanks to Hidehiko Ogata for his English translation of portions of *Denshi Yuugi Taizen* ((c) 1988 UPU).

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**New Products & other Neat Stuff**, Catalyzer from Legacy, S-VHS for your Amiga, CygnusEd Professional 4, Flyer SCSI Cases, and more!

**Wild Fire**, Amiga graphics heat up. In an age of lowered expectations for Amiga enthusiasts, it is particularly nice to see the enthusiasm that the crew behind Wildfire display preview by Dave Matthews.

**DiskSalv 3**, Second only to that horrible moment when you slam your locked car door and see the keys dangling from the ignition is realizing that you've just deleted a file that you need by Nick Cook.

**The SONY Digital Mavica MVC-FD7**, Being forced to live without a digital camera is no fun, probably akin to trying to kick any drug habit. Shakes, shivers, and quivers disturb a nights sleep, and you find yourself sobbing uncontrollably while reviewing your stored image data by R. Shamms Mortier.

**YA3DTE - Yet another 3D Type Effect**, Adding an additional dimension to your text and

graphics is easier than you think! by Nick Cook.

**On Line**, Tricks to installing those pesky "floppy only" programs on your hard drive. Choose the right Amiga pet for your system by Rob Hays

**This Old Workbench: Episode 13 Scalos and Newicons V4.1**, Scalos offers a more traditional workbench while providing a set of new features and Newicons is...well, newicons! by Dave Matthews.

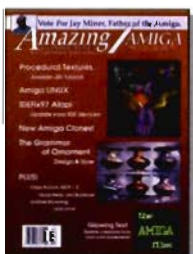
**Color t/x**, A few suggestions on using ImageFX to apply a color effect to a forgotten image or animation to resuscitate it and give it new life by R. Shamms Mortier.

**Midwest Ami Expo**, A gathering of Amiga souls was held in Columbus Nov 1-2. Read the latest on all the exhibitors and their products by Bob Scharp.

**Cologne '97 A Developer's View**, Kermit from Nova Design offers his insights into the Amiga's largest coming out party by Kermit Woodall

**Petro's Show Remarks**, The text of Petro Tyschtschenko's opening address at the Cologne Computer '97.

**An interview with Jeff Schindler, General Manager of Amiga Inc.**, "The product we wish to bring out first is the improved operating system O.S. 3.5. This would include the best of say internet, drivers and printer support to name a few." by Bob Scharp.



**Volume 12 Number 12, December 1997**

**New Products & other neat stuff**, Win a phase5 accelerator on the web, Amiga Forever emulator, Nova Sector Engineering to produce Amigas, Lotus Inc., and more! **IDEFix97 Atapi CDROM Device Update**, IDEFix not only supports Atapi CDROMs, but many other IDE devices, such as hard drives, IDE Zip drives, the LS-120 120MB floppy, IDE CDROM changers, as well as enhancements in general for IDE devices on the Amiga by Dave Matthews.

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**Amiga LINUX**, Another way to tell Bill Gates to, um, Buzz Off! by Nick Cook.



**Volume 12 Number 11; November 1997**

**New Products and other Neat Stuff**, Amiga Developers' conference, AmiCON Amiga Show, Epson, p.OS beta, PM Pro, and more.

**Multimedia Branching Storyboarding Creation**, Amiga multimedia producers need to be able to storyboard their ideas, but multimedia storyboarding incorporates necessities that animation storyboarding lacks, specifically "non-linearity", by R Shamms Mortier.

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**A Photo Finish Creating Image Filled Text**, Picture filled words can be worth a fortune to any layout or special graphic, by Nick Cook.

**Games on the Amiga**, This month, Peter has outdone himself. There are four sections to this issue's coverage of games on the Amiga you do not want to miss: Command & Conquer, Briefs: News on Amiga Gaming, Reviews, and Caught in the Net, by Peter Olafson.

**ANIMfaces**, AnimBrushes, only the AMIGA can boast of AnimBrushes. Use Shamms' technique to dabble in your own quick and easy animations, by R Shamms Mortier.

**Books of Note: Net Research: Information Online**, Avoid detours on the Information Superhighway. Daniel J. (BLAZEMONGER) Barrett has written a collection of strategies for research and discovery for everyone on the net, Reviewed by Nick Cook.

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# GAMES ON THE AMIGA

By Peter Olafson

## A Tribute to the work of Bill Williams: Part 1



Bill Williams (right) and Martha (center) are pictured here with Bill's long-time friend, James McGuinn (left), in a snapshot taken earlier this year.

His name is as plain as names come, but the Amiga games to which Bill Williams lent it were quite out of the ordinary. Between 1984 and 1991, the Michigan-born designer produced a quartet of adventures for Our Favorite Computer — diverse, memorable, strangely attractive and attractively strange.

Playing a Bill Williams game was often a transforming experience — as though some new and wonderful element had been introduced into the atmosphere. At a time when computer games were becoming ever more complex, Williams worked almost entirely on his own from a hilltop geodesic dome in the lower Michigan community of

with CF die by 13," Williams said. "So I had my middle-age crisis real fast, and every year since about 15 or so feels like getting extra balls on a pinball machine."

Williams doesn't want to be painted as a tragic figure. "When I die, it's not going to be a tragedy," he said. "It's going to be a release ... It's Bill finally being able to set down a weight that's gotten very, very heavy."

Williams' illness and his games are inextricably linked. "The phrase 'life's too short' has real meaning," Williams said. "I had this awful fear that, unless I worked really hard, it would be impossible for me

days in November, he spoke at length from his Texas home about his life, his games and the Amiga.

### The Early Years

Williams' first game was something of a fluke. He learned to code in college when forced to program a vast and unfriendly synthesizer in machine language. ("Haven't you heard of assemblers?" he was asked. "What's an assembler?" said Williams.)

He'd been working as a professional musician for about three years when he put together *Salmon Run* as a lark — using the Atari 800 his father (then a GM engineer) had given him to write an assembly-line simulator (Motive force: Addiction to early Atari 2600 games like *Tank* and *Shooting Gallery*).

The Atari Program Exchange surprised the then 22 year old designer by publishing *Salmon Run* in 1982. That fish tale — an upstream take on the jumping and running game — did not turn Williams into a household word. But it did catch the eye of Ihor Wolosenko of Synapse Software (publisher of 8-bit classics like *Fort Apocalypse* and *Shamus*). Williams eventually succumbed and went on to create *Necromancer* (Atari 800/C64, 1983) and *Alley Cat* (Atari 800/IBM, 1984) for Synapse.

Descriptions of Williams' 8-bit work suggest it anticipates his Amiga games, with a tendency to go against the grain, the use of love as reward and a strong element of randomness. In *Alley Cat*, for example, "The user had to keep madly jumping on a clothesline, trying to hit a target some distance away," Richard Brudzynski wrote in the March 1989 issue of *Syndicate Zmagazine* (on the occasion of Atari's reissue of *Necromancer* for its XE game

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**"I had this awful fear that, unless I worked really hard, it would be impossible for me to produce anything but time-wasters."**

---

Hadley — a town with one warning light and more horses than cars. This allowed for a style uniquely textured and uniquely personal. His games were always \*his\* games.

"I tried really hard to make an interesting mistake," Williams said of his designs. "And then I developed the mistake."

His career is all the more remarkable when you consider that Williams has cystic fibrosis. He lost his older brother and sister to that hereditary glandular condition when they were no more than 13, and he wasn't expected to survive adolescence. Now 37 ("a really old man for CF") and in the advanced stages of the disease, Williams' feels he is in "the last season" of his life.

But he doesn't say this in a wistful or unhappy way. "When I was 12 years old, I picked up a medical encyclopedia, and it told me, in unequivocal terms, that people

to produce anything but time-wasters. I demanded from every one of them [my games] that, as much as possible, they be in some way drawing the person forward so they were acquiring something, they were growing somewhere, they weren't just killing time.

"That was the goal. Sometimes I made it and sometimes I didn't. When I left the industry [in 1992], I was very down on myself. I felt like I'd mostly failed. I left at a time when, if you just walked into your average store or arcade and asked yourself, 'What is the standard video game or computer game?', the answer came back, 'It's killing simulators'."

It's only in the last three years that Williams has begun to come to terms with his achievements — typically through casual encounters with strangers who have enjoyed his work. ("You did *Alley Cat*?") My kid \*loves\* *Alley Cat*.) Over several

(continued on page 44)

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- Board sold separately or in cabinet with floppy, etc.
- Paxtron is the authorized distributor for sales and service in the United States.
- Priced to sell.

PAXTRON can customize the design of the motherboard to meet particular needs, adding new features or removing unnecessary parts to keep costs to a minimum. The design is flexible so that a range of motherboards can be built which have 90% common parts, mount in the same case, can be flexibly manufactured using computer controlled production equipment, and therefore allow rapid delivery of small batches at an economical price.

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